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FINAL
STAGE IA CULTURAL RESOURCES INVESTIGATIONS REPORT
CORNELL-DUBILIER ELECTRONICS
SUPERFUND SITE
SOUTH PLAINFIELD
MIDDLESEX COUNTY, NEW JERSEY

NOVEMBER 2003

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NOVEMBER 2003

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EXECUTIVE SUMMARY

Foster Wheeler Environmental Corporation is assisting the United States Environmental Protection Agency (EPA) in complying with Section 106 of the National Historic Preservation Act in identifying potentially significant cultural resources at the Cornell-Dubilier Electronics Superfund Site in South Plainfield, New Jersey. The Cultural Resource Study Area (CRSA) for the Cornell-Dubilier Electronics Superfund Site consists of the property of Hamilton Industrial Park; residential, commercial, and municipal properties in the vicinity of the former Cornell-Dubilier Electronics facility; and portions of the Bound Brook Corridor including flood plains from the industrial park downstream to New Market Pond.

Previous archeological surveys demonstrated that prehistoric sites were located along wetland margins of Bound Brook and in associated wetlands. One prehistoric site, 28Mi32, has been identified in the vicinity of the Hamilton Industrial Park. During the early twentieth century, local residents allegedly recovered prehistoric artifacts elsewhere on the property now occupied by the Hamilton Industrial Park. Industrial development and land filling had begun on this property by 1912. Later landform modifications have been severe on the Hamilton Industrial Park property and in surrounding residential neighborhoods. Documentary evidence indicated that flood plains of Bound Brook, downstream from the Hamilton Industrial Park, are also sensitive for prehistoric sites. Former flood plains along Bound Brook have been filled, possibly destroying archeological sites or modifying site integrity.

In 1912, the Spicer Manufacturing Corporation began constructing a new factory for the production of automobile parts on the property currently housing the Hamilton Industrial Park. Cornell-Dubilier Electronics Corporation operated at the facility from 1936 until 1962. Many buildings at the Hamilton Industrial Park have the potential to be eligible for the National Register of Historic Places (NRHP). Standing structures at the Hamilton Industrial Park should be recorded for the New Jersey Historic Preservation Office and evaluated for NRHP-eligibility.

Much of the CRSA has been subjected to land filling and possible subsoil disturbances. However, the CRSA may contain prehistoric and/or historic archeological sites that may meet criteria for NRHP-eligibility. Plans for future soil testing and/or soil remedial activities should be reviewed by a qualified archeologist to evaluate potential effects on archeological sites within the CRSA.

1.0 INTRODUCTION

Foster Wheeler Environmental Corporation (Foster Wheeler Environmental) is under contract with the United States Environmental Protection Agency (EPA) to provide technical support for remedial activities at the Cornell-Dubilier Electronics Superfund Site in the Borough of South Plainfield, Middlesex County, New Jersey. This Stage IA Cultural Resources Investigations Report has been prepared in response to Work Assignment Form (WAF) Amendment 17 to Work Assignment 118-RICO-02GZ, issued under EPA RAC II Contract Number 68-W-98-214. The Cultural Resource Study Area (CRSA) site consists of three areas: residential, commercial and municipal properties in the vicinity of the former Cornell-Dubilier Electronics facility; the contaminated soils and buildings at the former Cornell-Dubilier Electronics facility which currently houses the Hamilton Industrial Park; and the and Bound Brook Corridor on floodplains downstream through South Plainfield to New Market Pond in Piscataway Township (Figure 1).

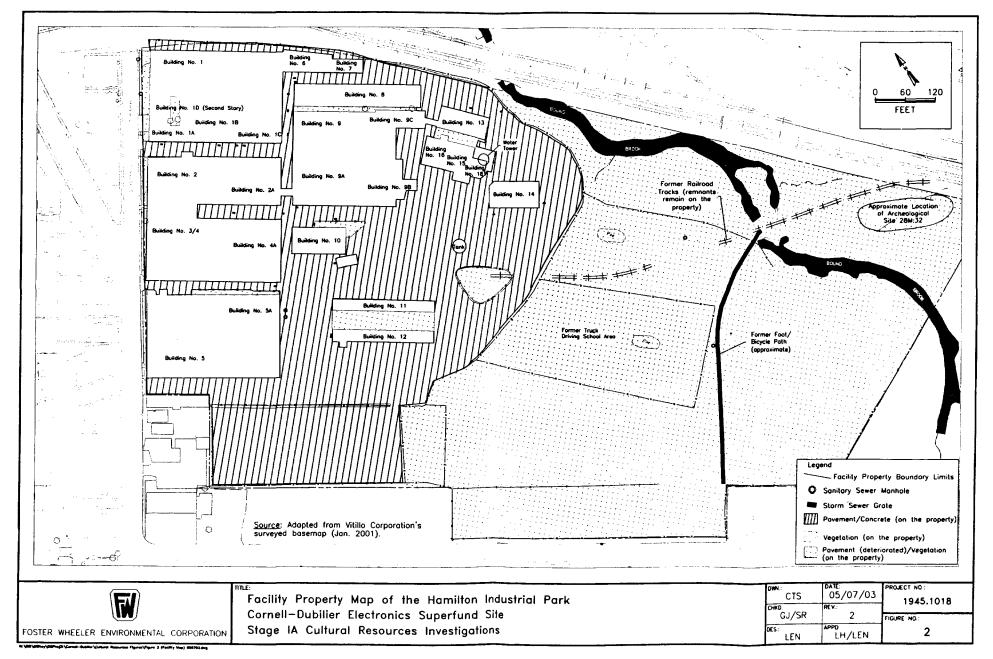
Foster Wheeler Environmental is assisting EPA in complying with Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, and the Department of the Interior's implementing regulations and guidelines entitled Protection of Historic Cultural Properties (36CFR800). Section 106 of the NHPA requires that federal agencies consider possible project effects of federal undertakings on cultural resources. Cultural resources include prehistoric and historic period archeological sites, architectural resources, and other historic landscape features that are listed on, nominated to, or potentially eligible for the National Register of Historic Places (NRHP). EPA actions at the Cornell-Dubilier Electronics Superfund Site might have effects on cultural resources resulting from ground disturbances associated with environmental testing, activities to remove or mitigate hazardous materials, or alterations to the settings of historic properties located on and/or near the site location.

The Hamilton Industrial Park is located at 333 Hamilton Boulevard in South Plainfield, and consists of approximately 26 acres (Figure 2). The industrial park was first developed by the Spicer Manufacturing Corporation in 1912 for the manufacture of automobile parts. Cornell-Dubilier Electronics Corporation (Cornell-Dubilier Electronics) operated at the facility from 1936 until 1962, manufacturing electronic components including capacitors. The industrial park now contains numerous buildings that are presently used for commercial and industrial operations. Polycholorinated biphenyls (PCBs) and chlorinated organic degreasing solvents were used in the manufacturing process, and it has been alleged that, during Cornell-Dubilier Electronics' period of operation, the company disposed of PCB-contaminated materials and other hazardous substances at the facility. Contaminants migrated to underlying soils and to groundwater. Environmental testing was begun by the New Jersey Department of Environmental Protection (NJDEP) in 1985, and the EPA has continued environmental testing since 1994. The Cornell-Dubilier Electronics Superfund Site was placed on the National Priorities List on 28 July 1998 (Foster Wheeler Environmental, 2002).

The Stage IA cultural resources survey investigations included three major tasks: documentary research, field inspections, and report preparation. Background research was conducted to identify







known archeological sites and historic properties, and areas sensitive for prehistoric Native American and historic Euro-American archeological sites. Research was conducted at the New Jersey Historic Preservation Office (HPO) and the New Jersey State Museum (NJSM) in Trenton for archeological surveys, architectural surveys, and NRHP properties located in or near the site area. The New Jersey State Archives was visited for information about the Spicer Manufacturing Corporation, which formerly occupied the property of the Hamilton Industrial Park. The South Plainfield Borough Public Library, Piscataway Township Public Library, Alexander Library at Rutgers University, and Morris County Library were visited for local histories, historic photographs, and historic maps of the site area and vicinity. The South Plainfield Environmental Office provided unpublished archeological information from the site area, and CMC Associates of Parlin, New Jersey provided tax maps for South Plainfield Borough. The American Museum of Natural History (AMNH), Division of Anthropology provided field records from archeological investigations conducted by Leslie Spier in 1914 (AMNH, 2001). Richard Veit of Monmouth University provided historic photographs of the Spicer Manufacturing Corporation. Dorothy Miele and Larry Randolph of the South Plainfield Historical Society provided historical and archeological information concerning the CRSA.

Field inspections included visits to the Hamilton Industrial Park and surrounding areas to observe areas sensitive for cultural resources within the CRSA. Modern land-use and evidence for past land-use were observed within the Hamilton Industrial Park and at select downstream locations along Bound Brook. Investigation activities included photo-documentation of select historic structures, identifying aboveground evidence for archeological sites, and observing disturbances that might effect the integrity of historic site settings and/or archeological preservation. Architectural resources at the Hamilton Industrial Park were assessed by an architectural historian to identify whether additional architectural and historical study was warranted.

This Stage IA Cultural Resources Investigations Report is presented in five sections and three appendices. Following this Introduction (Section 1.0), Section 2.0 describes the Environmental and Cultural Contexts based on documentary research. Section 3.0 describes the results of the Field Investigations, while Section 4.0 presents the Findings and Conclusions. Section 5.0 provides the References utilized during preparation of this report. Appendix A presents recommendations for additional architectural and historical study at the Hamilton Industrial Park by architectural historian Douglas McVarish of John Milner Associates, Inc. (JMA). Appendix B contains bibliographic information for the New Jersey HPO. The professional qualifications for Foster Wheeler Environmental's Principal Investigator, Dr. Sydne Marshall, and Project Archeologist, Dr. Stuart A. Reeve, are provided in Appendix C.

2.0 ENVIRONMENTAL AND CULTURAL CONTEXTS

2.1 Environmental Setting

The Cornell-Dubilier Electronics Superfund Site is located in South Plainfield, in northern Middlesex County, New Jersey. The CRSA is within the Piedmont Lowlands physiographic province of east-central New Jersey. The Hamilton Industrial Park portion of the CRSA is located mainly along the south bank of Bound Brook (a small area is present on the north side; Figure 2), at approximately 75 feet above mean sea level, near the commercial center of South Plainfield.

The headwaters of Bound Brook form in the Dismal Swamp in Edison Township, east of the CRSA. Bound Brook then flows north and west into South Plainfield past the Hamilton Industrial Park, and is joined by Cedar Brook west of the commercial center of South Plainfield. Bound Brook subsequently flows west into Piscataway Township, through the village of New Market, and then southwest to join with the Raritan River. Downstream from its confluence with Bound Brook, the Raritan River forms an extensive estuary where it empties into Raritan Bay at Perth Amboy.

Geologically, the region is underlain with late Triassic- to early Jurassic-age Brunswick Formation mudstone and siltstone (Anderson, 1968). Approximately 18,000 years before present (BP), Pleistocene glaciers flowed across northern New Jersey and formed terminal moraines to the north and east of South Plainfield. During glaciation, the Bound Brook basin was a glacial tundra. Farther east along the coast, sea levels were more than 200 feet lower than at present, and vast expanses of the Continental Shelf were exposed land (Gayes and Borkuniewicz, 1991; Coch et al., 1991).

Glacial melt led to outwash and lake deposits within the Bound Brook drainage basin (Stanford, 2000). Glaciofluvial deposits developed wetlands and drainage features during the Holocene, such as at Dismal Swamp east of the Hamilton Industrial Park. Wetlands often contain diverse plant and animal resources that were important to Native American hunter-gatherers (Nicholas, 1991). Rivers and streams cut terraces that were often favored camp locations for prehistoric Native Americans (Stewart, 1991).

The Holocene geological period in eastern New Jersey brought dramatic climatic changes that effected environments and human populations. Early Holocene climates fluctuated from warm to very cold intervals during the Pre-Boreal climatic phase (13,000-10,200 BP). By 12,000 years BP, boreal spruce dominated New Jersey uplands, while lowlands probably supported warmer-adapted pines, Northern Hardwoods (birch, alder, beech, and hemlock) and oaks (Davis, 1983; Gaudreau, 1988). Climate became warmer and moister during the Boreal phase (10,200-8000 BP), culminating in a period of maximum heat and dryness during the Atlantic climatic phase (8000-5000 BP) of the Middle Holocene. Essentially modern forests dominated by oaks and hickory probably developed by 8000 BP (Davis, 1983; McWeeney, 1999). Late Holocene climates became wetter and cooler during the Sub-Boreal phase (5000-2500 BP), then warmer during the Sub-Atlantic phase (2500-500 BP), to a significant cold period during the Little Ice Age phase (500-100 BP) (McWeeney, 1999). The fauna of New Jersey has also changed dramatically over time. Now extinct megafauna of

mammoths, mastodons, caribou, and other animals formerly roamed the Late Pleistocene tundra and boreal spruce savannas of New Jersey (Steadman et al., 1997; Morlan, 2001). With the gradual

northward migration of boreal conifers, northern hardwoods and temperate deciduous forests, a Deer-Turkey Biome developed as the predominant Holocene fauna (Shelford, 1978:57-59).

Sea levels rose through the Holocene, flooding the Continental Shelf and lower courses of major rivers including the Raritan River (Gayes and Borkuniewicz, 1991; Coch et al., 1991). Anadromous fish runs developed by about 8000 BP, funneling huge numbers of fish up rivers and creeks to spawning habitats. It is possible that the Bound Brook maintained sufficient water-flow to support fish spawning runs during moist Holocene climatic phases.

Modern soils reflect glacial history and historical development. Along the Bound Brook floodplain in the northern portion of the Hamilton Industrial Park, soils are classified as Rowland Silt Loam (Ro) (Powley, 1987). This soil type includes an upper layer of brown silt loam approximately 7 inches thick. The subsoil is dark brown to reddish brown silt loam approximately 33 inches thick, probably of late Pleistocene to Holocene-age, and the substratum is a gray silt loam to a dark gray sandy loam 30 inches or more thick. Soils covering the Hamilton Industrial Park include urban fill soils, such as Ellington Variant-Urban Land Complex (ESA) and Reaville-Urban Land Complex (RFA), deposited over the past century (Powley, 1987).

2.2 Prehistoric Native American Cultural Contexts

2.2.1 Prehistoric Cultural Chronology

The prehistory of New Jersey is usually described in terms of four major chronological periods that correspond to broad adaptive shifts to changing natural and cultural conditions (Chesler, 1982). These are the Paleo-Indian (13,000 to 9500 BP), Archaic (9500 to 2700 BP), Woodland (2700 BP to 500 BP), and Contact periods (500 BP to 300 BP). The Archaic and Woodland periods are further defined by Early, Middle, and Late sub-periods, based on differences among chronologically diagnostic artifacts such as projectile points, ground- and chipped-stone technologies, and/or ceramic styles (during the Woodland period).

The earliest definitive evidence for Native Americans in New Jersey comes from fluted projectile points of the Paleo-Indian Period (ca. 12,000 to 9500 BP) (Marshall, 1982). Archeologists often describe Paleo-Indians as highly mobile hunters of large game. Evidence for extinct mastodons in New Jersey includes the Bergen mastodon with an accepted date of 12,130 BP, the Bojak mastodon from Warren County dated to 10,995 BP, and the Highland Lake mastodon from northern New Jersey that dated to 10,890 BP (Morlan, 2001). An extinct Columbia stag-moose was dated to 11,600 BP in Warren County. Caribou were present until 12,720 BP, and giant beavers survived until 11,700 BP at Dutchess Quarry Cave in Orange County, New York (Steadman et al., 1997). Extinct mammals have not been identified in contexts that suggest human hunting (Marshall, 1982). However, Paleo-Indian stone tool assemblages often include non-local lithic types that indicate very broad territorial ranges, usually attributed to broad Paleo-Indian hunting ranges required for pursuit of large migratory ungulates.

Between 12,000 and 10,000 BP, or earlier, tundra environments rapidly changed to conifer and northern hardwood forests (Davis, 1983:172). Diversification of forest environments probably required increasingly diversified hunting and gathering strategies that were based on seasonal

settlement rounds. Paleo-Indian occupations have been identified along the Upper Delaware River at the Shawnee-Minisink Site, Monroe County, Pennsylvania (Marshall, 1982). The Shawnee-Minisink site contained evidence of fish bones, as well as diversity of plants from varied habitats, perhaps analogous to later Archaic hunter-gatherer adaptations (Kauffman and Dent, 1982:10).

The Archaic Period (ca. 9500 to 2700 BP) is believed to reflect hunting, fishing and plant gathering subsistence patterns developed in response to greater environmental diversity. Climatic warming led to forest closure after 10,000 BP and increasing dominance of northern and southern hardwoods over boreal conifers (Davis, 1983). Environmental changes brought about new human lifeways. Many Archaic Period archeological sites were repeatedly occupied over thousands of years, implying that Archaic people were focusing on highly productive habitats and resources as a basis for organizing annual subsistence rounds. Large wetlands are believed to have provided a subsistence base for repeatedly occupied base camps, attracting dispersed hunter-gatherer bands through the prehistoric period (Nicholas, 1991).

Early Archaic sites (ca. 9500 to 8000 BP) are relatively rare in New Jersey. Artifacts include bifurcate-base styles and Palmer and Kirk corner-notched points (Kraft, 1986). At the Turkey Swamp Site in Monmouth County, triangular points somewhat analogous to Late Paleo-Indian styles have been radiocarbon dated to 8739 and 7660 BP, suggesting Early to Middle Archaic occupations at wetlands along the coastal plain (Cavallo, 1981). The Dismal Swamp site (28Mi143), located southeast of the Hamilton Industrial Park, contained four Early Archaic bifurcate-base projectile points (Cultural Resources Consulting Group [CRCG], 1993:73). Thus, Native Americans lived in the vicinity of the CRSA for more than 8,000 years.

The Middle Archaic (ca. 8000 to 5000 BP) is characterized by the appearance of Kirk-stemmed points, Stanly-stemmed points, Morrow Mountain-like contracting stem points, grooved-stone axes, gouges, and other ground stone tools (Kraft, 1986:56; Kinsey, 1972). In the Delaware River valley, an array of woodworking artifacts and notched net-sinkers were recovered at the Harry's Farm site, dating from 7380 to 3920 BP, and at the Rocklein site, dating from 7520 to 5280 BP. These sites suggest the increasing importance of riverine fish resources (Kraft, 1986). One undated net-sinker was recovered at the Dismal Swamp site, suggesting that fishing activities occurred at Bound Brook in the CRSA vicinity (CRCG, 1993:1).

The Late Archaic (ca. 5000 to 2700 BP) is characterized by three cultural traditions in the Northeast and Middle Atlantic: the Laurentian, the Piedmont, and the Susquehanna (or Terminal Archaic) traditions (Kinsey, 1972; Kraft, 1986). These three cultural traditions overlap in both time and space (Reeve and Forgacs, 1999). Archeological evidence is more frequent for Late Archaic occupations throughout New Jersey and the Middle Atlantic region than for earlier cultural periods, suggesting increasing human populations (Kraft, 1986; Reeve and Forgacs, 1999). Climates were wetter after 5000 BP, recharging wetlands and streams. The Late Archaic had more common evidence for plant gathering than earlier periods in the form of grinding stones and large fire-cracked rock features or earthovens.

The Laurentian Tradition included corner-notched and side-notched projectile points such as Otter Creek, Brewerton, Sylvan, and Vosberg points, as well as semi-lunar ground stone knives and atlatl weights. Laurentian Tradition artifacts are most common in northern New Jersey, perhaps related to

groups in New York and New England (Kraft, 1986:73). The Dismal Swamp site contained three Brewerton points, indicating Laurentian Tradition occupations in the CRSA vicinity (CRCG, 1993).

The Piedmont Tradition is characterized by small, thick, narrow-stemmed to triangular points (Kraft, 1986:73). Projectile points include Lamoka, Lackawaxen, Bare Island, Normanskill, Poplar Island, and Teardrop (or Piscataway) points. At the Dismal Swamp site, 12 Lackawaxen point-variants and 8 Poplar Island projectile points were recovered. The Dismal Swamp site also included five fire-cracked rock features dated between 3500 and 3340 BP that were perhaps hearths, stone-boiling pits and/or earthovens (CRCG, 1993:53). In addition, nine groundstone fragments, a nutting stone, two pestles, two stone axes, and a stone hoe were recovered at the Dismal Swamp site, suggesting the importance of plant gathering and processing activities.

The Susquehanna (or Terminal Archaic) Tradition was characterized by broad-bladed points, including Susquehanna, Snook Kill, Perkioman, Lehigh, Koens-Crispin, Genessee, and Orient points; by the use of steatite bowls and, in rare instances, of pottery; and by elaborate ocher-lined cremation burials (Kraft, 1986). Social differentiation is evident from cremation burials and grave goods at the Koens-Crispin and Savich Farm sites within the Inner Coastal Plain region of New Jersey (Kraft, 1986:80). At the Dismal Swamp site, three Susquehanna Tradition projectile points were recovered; however, no steatite bowls or evidence of trade or burial goods were recovered (CRCG, 1993:73).

The Woodland Period (2700 BP to 500 BP) has been identified from changing ceramic traditions, projectile point styles, settlement patterns, and new subsistence modes. The Early Woodland (2700 BP to 2000 BP) has usually been recognized by the appearance of Vinette I, interior cord-marked pottery. Later ceramics included Bushkill exterior cord-marked and net-impressed ceramics. Diagnostic projectile points included Meadowwood side-notched and contracting-stemmed Lagoon and Rossville points. Archaic Narrow-stem (Piedmont) and Orient points also persisted into the Early Woodland. Evidence is rare in New Jersey for Adena trade goods and funerary ceremonialism, analogous to the Middlesex cemeteries in New York, Vermont or the Chesapeake Bay regions (Kraft, 1986:101; Kinsey, 1991:15).

The Middle Woodland (2000 BP to 1000 BP) is defined by the appearance of Fox Creek points, blade caches, and Jack's Reef points after 1300 BP. Pottery included Abbott-zoned designs and large storage vessels. Algonquin-speaking populations might have migrated south through New Jersey during the Early and Middle Woodland periods (Fiedel, 1990). The most notable Middle Woodland site in New Jersey is Abbott Farm, near Trenton, New Jersey. This site, at falls near head of tidal waters of the Delaware River, attracted large groups probably for surplus fishing. The Abbott Farm site was a locus for regional exchange networks, especially for local argillite and jasper blades and imported rhyolite, mica and copper artifacts. At the Dismal Swamp site, two Fox Creek projectile points and one Jack's Reef Pentagonal point were recovered (CRCG, 1993:73).

The Late Woodland (1000 BP to 500 BP) was a period of major cultural change in the Middle Atlantic. Tropical cultigens (maize, beans and squash) provided major new subsistence resources after 1000 BP (Reeve and Forgacs, 1999). In addition, the bow and arrow may have replaced atlatspear-hunting technologies during the Middle-Late Woodland periods in association with the appearances of Jack's Reef and triangular Levanna points (Blitz, 1988). Increased hunting efficiency and overkill of local deer populations might have increased the necessity for agricultural surpluses.

At the Dismal Swamp site, 18 triangular points were recovered, probably reflecting a large Late Woodland occupation (CRCG, 1993:73).

Kraft (1986) has suggested that pottery styles indicated ethnic diversification during the Late Woodland. In northern New Jersey, Proto-Munsee speaking peoples made Owasco cord-marked, Owasco herringbone, and Bowman's Brook incised wares that suggested influences from New York during the Pahaquarry Phase (950-600 BP). The later Munsee Phase (600-350 BP) included collared Iroquois-like pots. In central and southern New Jersey, Proto-Unami speaking peoples made collarless vessels similar to Townsend wares of the Delmarva Peninsula (Kraft 1986:120). By 650 BP, or earlier, Iroquois-speaking Susquahannocks migrated south across Pennsylvania. It is unclear whether interethnic warfare with New Jersey Algonquins was a significant factor of the Late Woodland period (Kraft, 1986). At the Dismal Swamp site, 31 sherds of non-diagnostic grittempered pottery were recovered, indicating Woodland residential site activities along Bound Brook (CRCG, 1993:49).

Kraft (1986:120) further suggested that during the Contact Period (500 to 350 BP), the Raritan River formed an ethnic frontier between Munsee-speaking peoples to the north, and Unami-speakers to the south. The Raritan band of Munsee-speakers occupied the north bank of the river, including the areas of South Plainfield and Piscataway Township (Trelease, 1997:7). When the Dutch colonized Manhattan and Brooklyn during the 1610s, they established trade with the Raritan band and surrounding groups west of the Hudson River. In 1640, the Raritan tried to capture a Dutch trading sloop and killed livestock on Staten Island. The Dutch retaliated by sending 80 soldiers against the Raritan and offering bounties for the heads of Natives (Trelease, 1997:64-67). A fragile peace was re-established between the Raritan and the Dutch. When the English took control of New York in 1664, English colonists from Long Island purchased a large area between the Passaic and Raritan Rivers, extending west to the Watchung Mountains (Wall and Pickergill, 1921). The Raritan moved west to the Delaware River valley, and they were eventually forced farther west to Ohio and eventually to Oklahoma (Kraft, 1989).

2.2.2 Prehistoric Settlement Patterns

Archeological site files of the NJSM and the New Jersey HPO were examined for records of known prehistoric archeological sites within the vicinity of the Cornell-Dubilier Electronics Superfund Site. In 1913 and 1914, Dr. Leslie Spier (1915:82, 86-87; AMNH, 2001) of the AMNH identified at least nine prehistoric camp sites and approximately 16 scattered finds. During 1977 and 1993, local historian Larry Randolph (1978, 1993) revisited Spier's sites to identify impacts from urban development. Randolph reported information concerning prehistoric sites to the NJSM (site files), South Plainfield Environmental Office, South Plainfield Public Library, and in articles for local newspapers.

During 1989 and 1990, the U.S. Army Corps of Engineers evaluated cultural resources along Bound Brook in conjunction with the Green Brook Flood Control Project. No new prehistoric archeological sites were identified along Bound Brook in the vicinity of the CRSA (Burrow and Hunter, 1990).

Louis Berger & Associates, Inc. (LBA, 1991) conducted an archeological survey of a 6.4-acre parcel bounded by Astor Street and Roosevelt Avenue in western South Plainfield, approximately 1,200 feet

south of Bound Brook. Land filling associated with Ellington Variant-Urban Land complex had disturbed most original soils, and no prehistoric sites were discovered.

As noted above, CRCG conducted data recovery excavations during 1993, at the Dismal Swamp Site. Excavations recovered 9,673 prehistoric artifacts spanning approximately 9,000 years. The Dismal Swamp site represents the most extensive evidence for prehistoric occupations in the vicinity of the CRSA (CRCG, 1993).

During 2001, archeological investigations were conducted along the Helen Street Extension Project in areas more than 2,000 feet east of the Hamilton Industrial Park (McEachen, 2001). No potentially significant prehistoric sites were identified.

Prehistoric archeological sites were identified within or in close proximity to the CRSA. These sites are briefly summarized below:

In 1913, Leslie Spier discovered site 28Mi32 near the Hamilton Industrial Park property. This large camp site was on sloping ground near springs, and "Several broken axes, hammer stones, arrow points, and chips were found on this site. The flaked objects were chiefly of flint and quartz" (Spier 1915:86). The next year, Spier returned to Bound Brook and conducted excavations at site 28Mi32 (AMNH, 2001:37). In Spier's Trench 1, a black soil formed the upper layer plowzone, 5 to 7 inches in depth. Prehistoric artifacts from the black soil included four argillite, 11 black chert, three yellow jasper artifacts, and one bone/shell fragment. Below the black soil was a yellowish-red sand layer up to 14 inches thick, overlying red shale subsoil. Spier excavated the yellowish-red sand in one-inch intervals. The yellowish-red sand contained 15 argillite, seven black chert, two yellow jasper, and three quartz artifacts; two bone/shell fragments; and two isolated fire-cracked rocks. Near the bottom of the yellowish-red sand, between 12 and 15 inches below the surface, Spier identified "several dozen fire-cracked stones and fragments of charcoal." This feature was probably an Archaic-period earthoven, similar to features identified at the Dismal Swamp site to the east (CRCG, 1993).

Local historian Larry Randolph (1978; 1993) revisited site 28Mi32 during 1977 and again in 1993. Randolph discovered that portions of Spier's site 28Mi32. Randolph excavated six 2-foot by 2-foot test units on wooded sloping ground north of Bound Brook. Randolph (1993) recovered one ground slate artifact; waste flakes of chert, jasper, shale, basalt, and argillite; fire-cracked rocks; and a possible pit feature perhaps dating from the Late Woodland period.

In 1913, Spier discovered two prehistoric sites along the south bank of Bound Brook:

"...on a hillock sloping to the southeast near Dismal Swamp, presents a number of interesting peculiarities. This camp is prolific in weathered specimens of soft stone and trap rock. A few grooved axes, one or two stone drills, hammerstones, and a gun flint of a square type have been found here. Burnt and fire-cracked stones are scattered over the site" (Spier, 1915:87).

In 1977, Larry Randolph (1978) revisited site 28Mi34 and reported that the:

"... survey located eight abraders on this site made of both sandstone and shale. The area has been somewhat disturbed by construction. Excavation at this site may not prove profitable,

the site being somewhat shallow. Topsoil appears less than a foot thick in places, the whole area being underlain with red shale. Heavy ground cover hampers surface collection" (Randolph, 1978:8).

In 1913, Spier described 28Mi33:

"The site is divided into two distinct parts. On the northern portion arrow points and hammer stones are found. Quantities of flakes and fire-cracked stones are scattered about this portion of the site. The southern part lies on a knoll. Here grooved axes, pitted hammer stones, crude celts and arrow points of all shapes and materials peculiar to this region have been collected" (Spier, 1915:87).

Randolph (1978) revisited site 28Mi33:

"To the south and west of the pond, (the areas noted in the 1913 survey), residential development appears to have destroyed the sites. However, a surface search by the ... survey yielded several quartz flakes and a possible anvil stone from a vacant lot south of the area of the pond. Surface collection in the vacant portions of this area is hampered by heavy ground cover" (Randolph, 1978:7).

The margins of Bound Brook west of the Hamilton Industrial Park and downstream to New Market Pond are within the CRSA. Randolph (1978) also reported that several residents found prehistoric axes and projectile points. The precise location of these finds remains unclear.

During 1913, Spier (1915:86) reported a local oral tradition that a prehistoric Native American burial ground was located in the area; however, no skeletal remains had been found by local residents.

Site 28Mi29 was discovered by Leslie Spier: "On a sandy slope near the Bound Brook, the quantity of arrow points and chips found seems to warrant the assumption that they mark a camp site" (Spier, 1915:86). Randolph further reported that "Local residents have confirmed a site located here. The area in question is a rise of sandy ground on the north side of the Bound Brook flood plain" (Randolph, 1978:4). Randolph conducted limited excavations and discovered buried humus layers at 28Mi29, suggesting that unfilled floodplain landforms along Bound Brook might be sensitive for buried prehistoric archeological sites.

Spier indicated that the area near the margins of New Market Pond contained prehistoric sites: Randolph revisited these areas and observed:

"Although an examination of this area yielded a small basalt scraper, the entire area has undergone much alteration. Both landfill and construction have served to disturb the sites. Allied with these have been recent efforts by both local and county governments to stabilize the stream bed and control flooding. It seems unlikely that any sites in the area have remained intact" (Randolph, 1978:3-4).

In summary, prehistoric settlement patterns were highly focused over more than 8,000 years along wetland margins of Dismal Swamp and stream terraces along Bound Brook.

Prehistoric sites have also been discovered in and near residential portions of the CRSA. Sites 28Mi33 and 28Mi34 were originally discovered by Leslie Spier in 1913. Portions of these sites were preserved in 1978, and were revisited by Larry Randolph (1978).

Documentary evidence indicated that flood plains of Bound Brook downstream from the Hamilton Industrial Park are also sensitive for prehistoric sites. Archeological investigations by Spier (1915), Randolph (1978; 1993) and CRCG (1993) indicated that prehistoric sites were deposited in shallow sandy soils, often less than 20 inches in depth, that overly silty red shale subsoils. Most of the Bound Brook corridor was subjected to historic plowing (Randolph, 1993). Landform modifications have apparently been severe on the property of the Hamilton Industrial Park and in surrounding residential neighborhoods. Former flood plains along Bound Brook have been filled, possibly destroying archeological sites or modifying site integrity.

2.3 Historic Euro-American Cultural Contexts

2.3.1 Agrarian Settlement

European colonization of areas along the Raritan River was relatively slow compared with the Hudson River. Henry Hudson explored the Hudson River in 1609 and claimed the area for the Netherlands. Dutch merchants established a trading fort on Manhattan Island in 1612, and Dutch settlers began colonizing Hudson County, New Jersey between 1614 and 1621. In 1664, English King Charles II granted his brother James, Duke of York, all lands east of the Connecticut River, including Dutch territories. An English fleet captured New York, and the Duke of York made proprietary grants to Sir George Carteret and John, Lord Berkley for lands between the Hudson and Delaware Rivers.

A patent was obtained from English Governor Nichols in 1664 for the large Elizabethtown Tract, encompassing much of today's Union and Middlesex Counties, including South Plainfield. Two years later, a group of settlers from Maine and New Hampshire were granted rights to settle in the Elizabethtown Tract. They bestowed the name of Piscataqua (Piscataway) from their northern homeland, when Piscataway Township was formed in 1666 (Clayton, 1882). Baptists from Rhode Island began moving to Piscataway and formed the Piscataway Baptist Church in 1689. The area of South Plainfield Borough was part of Piscataway Township until 1926.

Three small hamlets began to develop as early as the seventeenth century along Bound Brook within the vicinity of the CRSA. Among the Piscataway proprietors for the first land allotments in 1669 were James Fullerton and his brother (Clayton, 1882:595). They surveyed land in the general vicinity of South Plainfield, and James taught the first school in the area. In 1692, John and William Laing purchased 700 acres from John Barclay. The Laings were Quakers, and John Laing held the first Quaker meetings at his house. Sometime before 1732, the Laings built a dam and gristmill before along Cedar Creek in the modern commercial center of South Plainfield (Lenik, 1986). A sawmill was later built north of Bound Brook and west of Hamilton Avenue in the area of today's Boro Park (Trexler, 1976). The present commercial center of South Plainfield was first known as "Toe Town," and then came to be known as "Brooklyn" and a New Brooklyn" during the eighteenth century (Clayton, 1882).

The hamlet of Samptown developed along Bound Brook in western South Plainfield Borough. Benjamin Clark and Daniel McDaniel owned lands near Samptown and operated a sawmill by 1683 (Clayton, 1882:590). By the eighteenth century, the hamlet of Samptown contained a sawmill and a tavern. In 1792, the Baptists constructed a church and burial ground (presently the Hillside Cemetery) south of Bound Brook along the Colonial road in the vicinity of New Market Avenue.

English Quakers John and Stephen Vail settled in the area of Quibbletown, presently New Market, during the 1680s (Nolte et al., 1999:2-7). In 1707, Edmund Dunham founded the Seventh Day Baptist Church in the vicinity of New Market (Mealy, 1976:81). The Vail family dammed New Market Pond and constructed a sawmill, gristmill and fulling mill by the late eighteenth century (Nolte et al., 1999:2-7).

By the eighteenth century, Raritan Landing along the Raritan River had become the major commercial center of Piscataway Township. Small settlements grew around the early mills and along the country roads along Bound Brook. Present day Hamilton Avenue probably dated from this period, leading south from Union County, through New Brooklyn to Raritan Landing in Middlesex County (Gordon, 1828). A Colonial highway across Middlesex County ran east from Bound Brook in the vicinity of present-day New Market Avenue. Remnants of this original Colonial road survive north of the Hillside Cemetery.

During the American Revolution, British forces occupied New Brunswick and South Amboy from December 1776 to June 1777. American militias established outposts from the Rahway River west to Scotch Plains, Quibbletown, Bound Brook and farther west to Princeton (Mealy 1976:101; Lobdell, 1967:226). Piscataway Township was the scene of numerous skirmishes. On 1 February, 1777, approximately 600 Connecticut and Virginian troops were camped at Quibbletown when pickets detected a strong detachment of 1,030 British and Hessian troops from New Brunswick foraging for silage and supplies. Volleys were exchanged at Drake's Farm along the Brunswick-Metuchen Road. Another skirmish occurred at Quibbletown on 8 February, and at Rahway on 23 February (Lobdell, 1967:224-228). As the British evacuated New Brunswick during June of 1777, General George Washington moved Continental Army forces to occupy Quibbletown. Washington's map-maker noted that the gristmill at Quibbletown was owned by Jacob Siddlers, and it was probably defended by Continental Army troops. On 23 June, Continental Army troops from Smallwood's Brigade fortified the sawmill north of Bound Brook in the vicinity of the Hamilton Industrial Park (South Plainfield Historical Committee, 1976; Trexler, 1976). On 26 June, British Generals Howe and Cornwallis moved their forces through New Brooklyn and west along New Market Avenue, but met gunfire from Continental forces at the Battle of Quibbletown. The British then retreated to Staten Island (Mealy 1976:102-103).

During the winter of 1778-79, American forces camped at Middlebrook Heights, west of Bound Brook. The following fall, New Jersey Loyalists from the Queens Rangers, staged a raid from Staten Island to the Raritan River, and passed through New Market (Mealy, 1976:105-106). No other major actions were conducted in the vicinity of South Plainfield through the end of the war.

Piscataway Township remained an agricultural community during the early nineteenth century. The township's population grew slowly from 1,805 people in 1783 to 3,186 people in 1860 (Mealy, 1976:122). By the early nineteenth century, approximately ninety percent of the population of

Piscatway Township was inclined toward the Baptist Church (Barber and Howe, 1844). Raritan Landing and Piscataway declined as the centers of commerce. Quibbletown was renamed New Market in 1804, when a post office was established. New Market became the seat for township meetings and elections in 1800, 1802, 1820-21, 1831, and regularly after 1850 (Mealy, 1976:123). By 1834, New Market contained a gristmill, a tavern, a store, and approximately 20 dwellings (Clayton, 1882). In 1842, the Elizabeth-Town and Somerville Railroad was constructed through New Market. By 1880, the hamlet had grown to about 80 dwellings (Clayton, 1882). New Brooklyn and Samptown also remained small agricultural hamlets through the nineteenth century. In 1834, the *Brooklyn Gazette* described Samptown as containing a Baptist Church, a tavern, a store, and 10 or 12 houses (South Plainfield Historical Committee, 1976). By 1880, New Brooklyn and Samptown had begun to be known as South Plainfield. W.W. Clayton described the communities as containing:

"...grocery and general merchandise store, Reune and William Manning, who is also the post-master; school-house, Baptist Church, grist-mill, Mr. H. Acken, who carries on the milling, and the old saw-mill of Drake Dunn and John Smalley, built before the Revolutionary war; Mr. William Ryno, who is the owner since 1857, and carries on the business. His father was the first tavern-keeper in 1822, but gave it up, and since then there has been no inn kept in the village. There are about thirty or forty houses. There is no inn now in the villages. Both hamlets contain a total of 30 to 40 houses" (Clayton, 1882:599).

Figure 3 shows the CRSA and vicinity on the 1861 Map of Middlesex County (Walling, 1861), at the apex of agrarian development. Several historic sites were identified within the CRSA. The property of the present Hamilton Industrial Park was probably farmland during 1861. A millpond for the sawmill was located immediately north of the present Hamilton Industrial Park, and an unnamed house was located south of the pond outlet. The sawmill was located north of the pond outlet. Within the CRSA of the present residential area surrounding the Hamilton Industrial Park, the J. Boyce farmstead occupied a circa 1820 house at the intersection of Hamilton Boulevard and Belmont Avenue (Trexler, 1976; Acroterion, 1978). In 1861, L. Soper occupied a now-demolished farm west of Hamilton Avenue in the vicinity of Harvard Avenue. Also in 1861, V. Giles occupied the circa 1740 to 1780 Laing house and farm north of New Market Avenue, near the intersection with Pulaski Street (Trexler, 1976; Acroterion, 1978).

Several historic sites were also recorded within the CRSA along Bound Brook, west toward New Market Pond. An historic bridge crossed Bound Brook in the vicinity of the present Clinton Avenue Bridge. The historic house of Mary Randolph was near the head of New Market Pond and north of the old road that historically was north of Lakeview Avenue, near the CRSA. A bridge formerly crossed New Market Pond at Washington Street in New Market. The Vail gristmill was identified on the 1861 map west of the New Market Pond outlet.

2.3.2 Industrialization and Urbanization

Railroads brought industries and increasing populations to the area of South Plainfield. In 1875, the Easton and Perth Amboy Railroad, part of the Lehigh Railroad, constructed tracks through New Market and South Plainfield to Perth Amboy (Mealy, 1975:129). The Rahway & Roselle Railroad constructed a new branch line north to Elizabeth in 1890-91 (Personal Communication, Larry



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FOSTER VHEELER ENVIRONMENTAL CORPORATION

Detail from Walling's 1861 Map of Middlesex County
Cornell—Dubilier Electronics Superfund Site
Stage IA Cultural Resources Investigations

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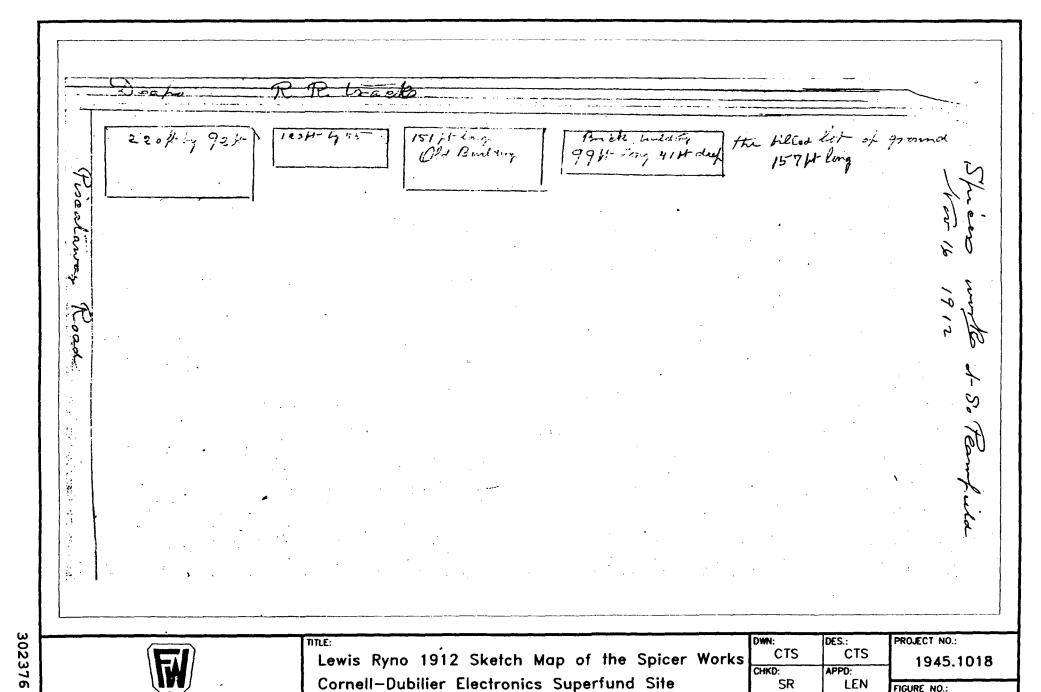
Randolph with Stuart Reeve, 2003). Railroad grades crossed and partially filled the former sawmill pond north of the Hamilton Industrial Park. A small depot was constructed at South Plainfield in the area north of the Hamilton Industrial Park (Everts and Stewart, 1876). By 1897, a coal yard was constructed at South Plainfield, supplying 310,000 tons of coal (Zerbe, 1998). The coal yard was north of Bound Brook and north of the CRSA.

The first major industry within South Plainfield began in 1912 with the construction of the Spicer Manufacturing Corporation plant on the site of the existing Hamilton Industrial Park. The company's founder, Clarence Spicer, was an important figure in the automotive industry. A native of Illinois, Spicer designed the "universal joint" transmission when an engineering student at Cornell University's Sibley College. He received a patent in 1903. As a Seventh Day Baptist, Spicer moved to the Baptist community of Plainfield in Union County. In 1905, he incorporated the Spicer Universal Joint Manufacturing Company. At first, he contracted with the Potter Printing Press Company to manufacture his universal joints. Then with three employees, he began manufacturing parts himself in one corner of the Potter building. His business was so successful that Spicer began searching for a site for a new plant (The History Factory, 1996).

In 1912, Spicer bought farmland in Middlesex County and began building his new factory in South Plainfield. Two features of New Brooklyn/South Plainfield were attractive to Clarence Spicer. The hamlet had been a Baptist community since the Colonial period, and the new factory site was adjacent to two branches of the Lehigh Valley Railroad. Sketches for the first buildings of the new Spicer works were discovered at the Rutgers University Special Collections Library in the account book of Lewis Ryno, dated 16 November 1912 (Figure 4). The Ryno sketch showed four buildings east of the "Piscataway Road," now Hamilton Boulevard, and parallel to the Lehigh Valley Railroad tracks. The first building was 220- feet long and 92-feet wide, and south of the Railroad Depot. The second building (to the east) was 123-feet long and 55-feet wide. Next was an "Old Building," 151-feet long. The fourth building was a "Brick Building," 99-feet long and 41-feet wide. To the east of the Brick Building, Ryno noted "the filled lot of ground, 157 ft long."

By 1914, Spicer was unable to fill the growing number of orders for his universal joints, bringing the company to the brink of bankruptcy. Charles Dana assumed financial control and reorganized the company as the Spicer Manufacturing Corporation in 1916. Dana motivated his workforce by providing group insurance, an employee stock purchase plan, and cafeteria facilities, by selling bulk food at cost; by building and selling inexpensive houses to workers; and by providing courses on "Modern Production Methods." Dana also began purchasing complementary automotive companies, including the Chadwick Engine Company, Salisbury Axle, Sheldon Axle, Parish Pressed Steel, Snead & Co., Almetal, and Brown-Lipe (The History Factory, 1996).

Table 1 provides the approximate dates of building construction at the Hamilton Industrial Park, and Figure 2 shows the location of these numbered buildings on the property. Building No. 13, the 1912 Machine Shop, corresponds to the dimensions and approximate location of the "Brick Building" described on the Ryno map, Figure 4. Building No. 14 is indicated as the oldest building on the Hamilton Industrial Park, dating perhaps to 1910, however this building was not identified on the Ryno map from 1912. Building No. 1 at the Hamilton Industrial Park probably incorporated the first Spicer building on the Ryno map, while the smaller second building and Ryno's "Old Building" were probably demolished. Expansion occurred during World War I, with Spicer Manufacturing





FOSTER WHEELER ENVIRONMENTAL CORPORATION

TITLE: Lewis Ryno 1912 Sketch Map of the Spicer Works Cornell-Dubilier Electronics Superfund Site Stage IA Cultural Resources Investigations

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Table 1

History of Structures at the Hamilton Industrial Park, and Building Usage/Function by the Cornell-Dubilier Electronics Corporation (after Foster Wheeler Environmental, 2002).

Building No. (Figure 2)	Year Constructed	Usage/Function by the Cornell-Dubilier Electronics Corporation
1	1911-1918	Offices, Storage, Staking Etching
1 A	1911-1918	Offices, Staking Testing
1B	1911-1918	Staking Testing, Forming Tanks, Spray Booth
1C	1911-1918	Staking Testing, Forming Tanks, Reactors
2	1917	Storage, Spray Booth
2A	1917	Ageing Racks
3	1918	First Aid, Photo Gravure Dept.
4	1917, 1918, 1918	Photo Gravure Dept., Plating, Storage, Shipping
4A	1917, 1918	Storage, Shipping, Sub-assembly
5	1946	Capacitor Manufacturing, Test House, Winding Room
5A	1946	Office, Spray Booth, Drying Area
6	1918	Wax Room
7	1916	Carpentry Shop
8 .	1950	Electric Generator Area, Forming and Edging Tanks
9	1918	Etching, Forming Tanks, Washing & Ageing
9A	1917, 1918	Etching, Forming Tanks, Generator Room
9B	1917	Forming Tanks, Generator Room, Glycol Impregnating, Switch Room
9C	1950	Unknown
10	1918	Oil House
11	1950	Unknown
12	1950	Unknown
13	1912	Machine Shop
14	1910	Storage
15	Unknown	Engine Room for Boiler House
16	Unknown	Boiler House
18	Unknown	Engine Room/Boiler House

Corporation's participation in manufacturing parts for "Liberty Trucks" for the U.S. Army, including construction of Building Nos. 1, 1A, 1B, 1C, 2, 2A, 3, 4, 4A, 6, 7, 9, 9A, 9B, and 10 (Table 1). A railroad spur line was also constructed from the rear of Building No. 4A, over a culvert crossing of Bound Brook, to the Perth Amboy spur of the Lehigh Valley Railroad. By the end of the war, Spicer Manufacturing Corporation employed 1,700 people at their South Plainfield works.

The Borough of South Plainfield was incorporated in 1926, largely as a result of population growth associated with the Spicer Manufacturing Corporation factory, the Harris Structural Steel factory constructed in 1915, and the Rock Wool Corporation factory, all along New Market Road. Hadley Air Field in southwestern South Plainfield was one of the first commercial and passenger airports in the United States. The Borough established a street plan for farmlands south of Bound Brook. The Roosevelt School was opened in 1927 along Hamilton Boulevard (South Plainfield Historical Committee, 1976). However, residential development was a slow process in the areas south of Bound Brook.

Spicer Manufacturing Corporation began moving many manufacturing operations to Ohio during the late 1920s. In 1936, Spicer Manufacturing Corporation leased its South Plainfield plant to Cornell-Dubilier Electronics Corporation, who bought the property in 1956. During World War II, Cornell-Dubilier Electronics manufactured capacitors and other equipment for the U.S. government. Table 1 identifies usage and functions of buildings at the Hamilton Industrial Park during the period of Cornell-Dubilier operations. Building Nos. 5, 5A, 9C, 11, and 12 were constructed during the period of Cornell-Dubilier Electronics operations. Dates of construction for Building Nos. 15, 16 and 18 are unknown. Cornell-Dubilier Electronics closed its South Plainfield facility in 1962.

Figure 5 is a 1940 aerial photograph of the early residential development surrounding the Hamilton Industrial Park. Most of the area south of Bound Brook had been deforested, a remnant of the area's agrarian past. Many streets remained undeveloped and unpaved by the beginning of World War II. In 1940, the population of South Plainfield numbered 5,300 people. By 1960, the population had grown to 17,879 people, and most of the area around the Hamilton Industrial Park had been developed (South Plainfield Historical Committee, 1976).

During World War II, the Federal Government constructed oil pipelines from Texas to Woodbridge, New Jersey called the Big Inch and Little Big Inch Pipelines. These pipelines extend along the eastern boundary of South Plainfield, approximately 7,000 feet east of the Cornell-Dubilier Electronics Superfund Site. The Big Inch and Little Big Inch Pipelines were listed on the NRHP in 1993. These are the only properties in South Plainfield listed on the NRHP (Louis Berger & Associates, Inc., 1998; HPO site files).

In 1977, an architectural assessment was conducted of Middlesex County, including the CRSA. The Laing House at 408 New Market Avenue (HPO 21-29), and the A. Boice House at 1411 Belmont Avenue (HPO 21-30) were identified as historic structures. These properties were not recommended as eligible for the NRHP (Acroterion, 1978). The Hamilton Industrial Park was not recorded in the 1977 historic structures survey. Many other structures in the residential area surrounding the Hamilton Industrial Park were built during the early twentieth century and were not identified in the historic structures survey (Acroterion, 1978).





TITLE:

1940 Aerial Photograph Cornell-Dubilier Electronics Superfund Site Stage IA Cultural Resources Investigations

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In 1998, the New Jersey HPO issued an opinion that historic facilities associated with the Lehigh Valley Railroad were potentially eligible for NRHP. No contributing historic resources from the Lehigh Valley Railroad Historic District were identified within the CRSA in the HPO study (Zerbe, 1998). However, former coal yards are located north of the Hamilton Industrial Park, and were identified as a contributing resource to the NRHP historic district (Zerbe, 1998).

Local historian Larry Randolph also identified the ruins of a facility where steam locomotives that were serviced that are located on the south side of Bound Brook approximately 1,000 feet west of the Hamilton Industrial Park. These ruins might be determined to be contributing resources to the Lehigh Valley Railroad Historic District. Randolph also stated that railroad bridges crossing Bound Brook in the CRSA contain tablets dating their construction to the first 15 years of the twentieth century. Randolph observed that these bridges represented an effort to upgrade the railroad right-of-way to handle heavier locomotives and newer railroad cars. The railroad bridges are potentially eligible for the NRHP (Personal Communication, Larry Randolph with Stuart A. Reeve, 2003).

In 1999, Nolte (et al.,1999) investigated the historic Vail Mill Complex at the outlet of New Market Pond. The architectural remains of the mill were recommended as not eligible for the NRHP.

3.0 FIELD INVESTIGATIONS

In December 2002, Foster Wheeler Environmental completed the Remedial Investigation Report for Operable Unit 2 (OU-2), On-Site Soils and Buildings, in which available environmental information and soil testing data were compiled for the Hamilton Industrial Park (Foster Wheeler Environmental, 2002). Logs from soil borings and test pits revealed that former ground surfaces have been filled from 3 to 12 feet with sand and rubble. Soil logs did not indicate preservation of buried dark brown to black topsoils or plowzones. It is likely that land filling in areas south of Bound Brook on the Hamilton Industrial Park property has disturbed or destroyed archeological sites, if formerly present.

A cultural resources survey was conducted of the site area on 23 April 2003 by Foster Wheeler Environmental and its subcontractor JMA. The objective of the survey was to observe aboveground remains of archeological sites, areas likely to contain buried archeological sites, and ground disturbances likely to have effected archeological site preservation, and to determine if structures at the Hamilton Industrial Park have the potential to be eligible for the NRHP.

The Hamilton Industrial Park property was visited with representatives of Foster Wheeler Environmental, JMA, EPA, and the current property owner. The JMA architectural historian visited industrial buildings. Selected buildings, streetscapes and landforms were photographed by Foster Wheeler Environmental. All buildings were constructed at least 50 years ago. JMA's recommendations for additional architectural and historical research at the Hamilton Industrial Park are presented in Appendix A.

During the field visit, no above ground archeological evidence of the original 1912 structures associated with the Spicer Manufacturing Corporation was observed (Figure 4). Much of the Hamilton Industrial Park property is currently paved and filled, and no evidence of historic or prehistoric archeological sites were observed in areas south of Bound Brook. Rainfall and beaver damming activities had flooded the Bound Brook floodplain upstream from the railroad spur culvert on the Hamilton Industrial Park property. The former railroad spur extending across Bound Brook maintains ties and tracks in some areas.

The CRSA Bound Brook Corridor, downstream from the Hamilton Industrial Park, were observed from roadsides and cul-de-sacs. No private properties or railroad properties were visited, and wetlands were not walked, since these activities were not part of the EPA scope of work for the Stage IA Cultural Resources Investigation. Many historic floodplains appear to have been filled along Bound Brook from the Hamilton Industrial Park west to the Clinton Avenue Bridge. The historic bridges at Clinton Avenue and Washington Street have been replaced, and no vestiges of historic structures were observed during the roadside survey. The Holy Redeemer Cemetery north of Bound Brook does not appear to be a historic burial ground. In contrast, documentary sources indicate that the Hillside Cemetery south of Bound Brook contains the eighteenth- and nineteenth-century Baptist cemetery, possible archeological remains of a Baptist Church, and remnants of the Colonial highway. This historic cemetery is separated from the Bound Brook CRSA by the Lehigh Valley Railroad tracks (now Conrail) and is outside of the CRSA. The railroad bridges crossing Bound Brook were not visited as part of this study, however, a local historian has stated that the bridges bear markers indicating that they were constructed during the first 15 years of the twentieth century (Personal

Communication, Larry Randolph with Stuart Reeve, 2003). The remains of an historic dam are preserved at the outlet of New Market Pond, and these have been described by Nolte (et al., 1999).

4.0 FINDINGS AND CONCLUSIONS

Foster Wheeler Environmental is assisting the EPA in complying with Section 106 of the NHPA in identifying potentially significant cultural resources at the Cornell-Dubilier Electronics Superfund Site. Cultural resources include prehistoric and historic period archeological sites, architectural sites, and other historic landscape features that are listed on, nominated to, or potentially eligible for the NRHP. The CRSA consists of three areas: 1) the Hamilton Industrial Park, 2) residential, commercial and municipal properties in the vicinity of the industrial park, and 3) the Bound Brook Corridor that includes flood plains from the industrial park downstream to New Market Pond. Cultural resources within each area will be summarized.

4.1 The Hamilton Industrial Park

One prehistoric site, 28Mi32, has been identified in the area. Local residents also allegedly recovered prehistoric artifacts on the industrial park property south of Bound Brook during the early years of the Spicer Manufacturing Corporation (Spier, 1915; Randolph, 1978; 1993). Industrial development and land filling had begun on this property by 1912. Later landform modifications have been severe on the property of the Hamilton Industrial Park (Foster Wheeler Environmental, 2002). Land filling might have destroyed prehistoric archeological sites, if present, in areas south of Bound Brook.

In 1912, the Spicer Manufacturing Corporation began constructing a new factory for the production of automobile parts on this property (Figure 4). At least 15 buildings and/or building segments have been dated to the period of the Spicer Manufacturing Corporation. From 1936 to 1961, Cornell-Dubilier Electronics occupied the industrial park buildings. Five buildings and/or building segments were constructed during the period of Cornell-Dubilier Electronics operations. All buildings at the Hamilton Industrial Park were built at least 50 years ago (Table 1). An architectural historian with JMA proposed that standing structures probably do not meet NRHP-criteria based on architectural integrity as listed in Criterion C, but should be evaluated for historical significance based on Criteria A and B. JMA recommended that standing structures at the Hamilton Industrial Park should be recorded for the New Jersey HPO and evaluated for NRHP- eligibility (Appendix A).

4.2 Residential Areas

Prehistoric sites have been identified within residential neighborhoods surrounding the Hamilton Industrial Park (Spier, 1915; Randolph, 1978). Archeological excavations in the vicinity of the residential area indicated that most prehistoric sites in the region were deposited in shallow sandy soils often less than 20 inches in depth, that overlay silty red shale subsoils (AMNH 2001; Randolph, 1978, 1993; CRCG, 1993). Shallow archeological sites might have been disturbed by residential and commercial development. Most of the area was also subjected to historic plowing (Randolph, 1993).

An architectural assessment of Middlesex County was conducted in 1977, including the area of the CRSA (Acroterion, 1978). The Laing House at 408 New Market Avenue (HPO 21-29), and the A. Boice House at 1411 Belmont Avenue (HPO 21-30) were identified as historic structures. These properties were not recommended as eligible for the NRHP (Acroterion, 1978). In addition, the 1861 Walling map (Figure 3) identified the farmhouse of L. Soper, now-demolished, west of Hamilton Avenue in the vicinity of Harvard Avenue. Residences and other structures constructed

during the early twentieth century were not identified during the 1977 historic structures survey, including the Hamilton Industrial Park (Acroterion, 1978).

4.3 The Bound Brook Corridor

Documentary evidence indicated that flood plains of Bound Brook are sensitive for prehistoric sites (Spier, 1915; Randolph, 1978).

The Bound Brook Corridor contains several areas that are sensitive for historic resources. An eighteenth-century sawmill was located north of Bound Brook in the area of Boro Park. Archeological remains of this sawmill have not been identified. The 1861 Walling map (Figure 3) identified a possible house near the south outlet of the millpond. This site might have been destroyed by the Lehigh Valley Railroad. Historic bridges at Clinton Street and Washington Street have been replaced. The historic house of Mary Randolph was near the head of New Market Pond near the APE (Figure 3). In 1999, Nolte et al. investigated the historic Vail Mill Complex at the outlet of New Market Pond. The architectural remains of the mill were recommended as not eligible for the NRHP. In 1996, the New Jersey HPO issued an opinion that historic facilities associated with the Lehigh Valley Railroad were potentially eligible for NRHP. No contributing historic resources from the Lehigh Valley Railroad Historic District were identified within the CRSA in the HPO Study (Zerbe, 1998). The former coal yards north of the CRSA are a contributing resource to the Lehigh Valley Railroad Historic District. In addition, Randolph indicated that all railroad bridges crossing Bound Brook within the CRSA have markers indicating that they were constructed during the first 15 years of the twentieth century. Randolph also identified structural ruins associated with the railroad approximately 1,500 feet west of the Hamilton Industrial Park. These railroad-related structures have the potential to be eligible for the NRHP.

Section 106 of the NHPA requires that federal agencies must consider possible project effects on cultural resources for undertakings. EPA actions at the Cornell-Dubilier Electronics Superfund Site might have effects on cultural resources resulting from ground disturbances associated with environmental testing and/or activities to remove or mitigate hazardous materials, or effects from altering the settings of historic properties located on and/or near the site location. Although much of the CRSA has been subjected to land filling and possible disturbances of archeological sites, the CRSA is sensitive for possible prehistoric and/or historic archeological sites. Field visits were not conducted on private properties within the CRSA to identify whether cultural resources were present or to evaluate the extent of ground disturbances. Most previously identified archeological sites in or near the CRSA have not been investigated and/or evaluated for NRHP-eligibility. Plans for future soil testing and/or soil remedial activities should be reviewed by a qualified archeologist to evaluate potential effects on archeological sites within the CRSA.

5.0 REFERENCES

Acroterion, 1978. Middlesex County Cultural Resource Survey. Office of New Jersey Heritage/Department of Environmental Protection, Trenton, and Middlesex County Cultural and Heritage Commission, NJ.

AMNH, 2001. Accession 37. Leslie Spier Field Records. Kristen Mable, Registrar for Archives & Loans, American Museum of Natural History, letter to Dr. Stuart A. Reeve, Foster Wheeler Environmental, October 9, 2001.

Anderson, Henry R., 1968. Geology and Ground-Water Resources of the Rahway Area, New Jersey. Special Report No. 27. US Geological Survey and New Jersey Department of Conservation and Economic Development, Division of Water Policy and Supply.

Barber, John W., and Henry Howe, 1844. Historical Collections of the State of New Jersey. Reprinted 1861 by Benjamin Olds, Newark, NJ.

Blitz, J.H., 1988. Adoption of the Bow in Prehistoric North America. North American Archaeologist 9(2):123-145.

Burrow, Ian C.G., and Richard W. Hunter, 1990. A Cultural Resource Survey for the Green Brook Flood Control Project in the City of Plainfield, the Boroughs of Bound Brook, Middlesex, Dunellen, North Plainfield and South Plainfield, and the Townships of Green Brook and Bridgewater, Middlesex, Somerset and Union Counties, New Jersey. Prepared for the U.S. Army Corps of Engineers, New York District. Hunter Research Inc., Trenton, NJ.

Cavallo, John, 1981. Turkey Swamp: A Late Paleo-Indian Site in New Jersey's Coastal Plain. Archaeology of Eastern North America 9:1-17.

Chesler, Olga, editor, 1982. A Review of Research Problems and Survey Priorities: The Paleo-Indian Period to the Present. Office of New Jersey Heritage, Trenton, NJ.

Clayton, W. Woolford, 1882. History of Union and Middlesex Counties, New Jersey. Everts & Peck, Philadelphia, PA.

Coch, Nicholas K., Karin G. Barton, and Albert G. Longoria, 1991. Holocene Evolution of the Hudson River Estuary. Journal of Coastal Research 11:55-72.

CRCG, 1993. Archaeological Data Recovery, Dismal Swamp Prehistoric Site 28-Mi-143. Cultural Resources Consulting Group, Edison Tyler Estates Project, Edison Township, Middlesex County, New Jersey.

Davis, Margaret Bryan, 1983. Holocene Vegetational History of the Eastern United States. In Late-Quaternary Environments of the United States, Volume 2, The Holocene, edited by H.E. Wright, Jr., pp. 166-181. University of Minnesota Press, Minneapolis.

Everts and Stewart, 1876. Combination Atlas Map of Middlesex County, New Jersey. Everts and Stewart, Philadelphia, Pennsylvania.

Fiedel, Stuart J., 1990. Middle Woodland Algonquian Expansion: A Refined Model. North American Archaeologist 11(3):209-230.

Foster Wheeler Environmental Corporation, 2002. Final Remedial Investigation Report for Operable Unit 2 (OU-2), On-Site Soils and Buildings for Cornell-Dubilier Electronics Superfund Site, South Plainfield, Middlesex County, New Jersey. Prepared for United States Environmental Agency under RAC II Contract Number 68-W-98-214. Foster Wheeler Environmental Corporation, Morris Plains, NJ.

Gaudreau, D.C., 1988. The Distribution of Late Quaternary Forest Regions in the Northeast: Pollen Data, Physiography, and the Prehistoric Record. In Holocene Human Ecology in Northeastern North America, edited by G.P. Nicholas, pp. 215-256. Plenum Press, New York.

Gayes, Paul T., and Henry J. Borkuniewicz, 1991. Estuarine Paleoshorelines in Long Island Sound, New York. Journal of Coastal Research 11:39-54.

Gordon, Thomas, 1828. A Map of the State of New Jersey. On File, Alexander Library, Rutgers University, New Brunswick, NJ.

Guter, Robert P., and Janet W. Foster, 1985. Middlesex County Inventory of Historic, Cultural and Architectural Resources, 1985 Supplement, Middlesex County Index of National Register Properties and Properties Eligible for National Register, Municipal Summaries. Office of New Jersey Heritage/Department of Environmental Protection, Trenton, and Middlesex County Cultural and Heritage Commission, NJ.

Kauffman, Barbara E., and Richard J. Dent, 1982. Preliminary Floral and Faunal Recovery and Analysis at the Shawnee-Minisink Site (36)MR43). In Practicing Environmental Archaeology: Methods and Interpretations, edited by R.W. Moeller, pp. 7-12. American Indian Archaeological Institute Occasional Paper Number 3.

Kinsey, W. Fred, III., 1972. Archeology in the Upper Delaware Valley. Anthropological Series Number 2. The Pennsylvania Historical and Museum Commission, Harrisburg, PA.

Kinsey, W. Fred, III., 1991. A Trip Down Memory Lane: Digging Along the Delaware 1964 to 1974. In The People of Minisink, edited by D. Orr and D.V. Campana, pp. 1-20. The National Park Service, Philadelphia, PA.

Kraft, Herbert C., 1986. The Lenape, Archaeology, History, and Ethnography. New Jersey Historical Society, Newark, NJ.

Lenik, Edward J., 1986. Archaeological Investigations at the Randolph-Brooklyn Mill Site, South Plainfield, New Jersey. Sheffield Archaeological Consultants, Wayne, NJ.

Lewis Berger & Associates, Inc., 1991. Phase I Archaeological Survey of the Proposed Storage/Staging Yard at Harris Structural Steel Plant, South Plainfield, Middlesex County, New Jersey. Lewis Berger & Associates, Inc., East Orange, NJ.

Lewis Berger & Associates, Inc., 1998. Big Inch & Little Inch Pipelines, Inventory of Resources Constructed by War Emergency Pipelines, Inc. 1942-1943. Lewis Berger & Associates, Inc., East Orange, NJ.

Lobdell, Jared C. 1967. Two Forgotten Battles in the Revolutionary War. New Jersey History 85:225-234.

Marshall, Sydne, 1982. Aboriginal Settlement in New Jersey During the Paleo-Indian Cultural Period ca: 10,000 B.C. - 6,000 B.C. In A Review of Research Problems and Survey Priorities: The Paleo-Indian Period to the Present. Olga Chesler, editor. Office of New Jersey Heritage, Trenton, NJ.

McMachen, Paul J., 2001. Phase 1B Archaeological Investigation, Helen Street Extension Project, Borough of South Plainfield, Middlesex County, New Jersey. Richard Grubb & Associates, Cranbury, NJ.

McWeeney, Lucinda, 1999. A Review of Late Pleistocene and Holocene Climatic Changes in Southern New England. Bulletin of the Archaeological Society of Connecticut 62:3-18.

Meuly, Walter C., 1976. History of Piscataway Township, 1666-1976. Somerset Press Inc., Somerville, NJ.

Morlan, Richard E., 2001. Canadian Archaeological Radiocarbon Database, New Jersey. Canadian Museum of Civilization. Internet: http://www.canadianarchaeology.com.

Nicholas, George P., 1991. Putting Wetlands into Perspective. Man in the Northeast 42:29-38.

Nolte, Keley, Elizabeth S. Burt, Mark A. Steinback, and Michael A. Cinquino, 1999. Archaeological and Architectural Evaluation of the Former New Market Mill, Piscataway Township, Middlesex County, New Jersey. Panamerican Consultants, Inc., Buffalo, NY.

Powley, Van R., 1987. Soil Survey of Middlesex County, New Jersey. U.S. Department of Agricultural, Soil Conservation Service, U.S. Government Printing Office, Washington, D.C.

Randolph, Larry R., 1978. An Investigation of Archeological Sites in the Borough of South Plainfield. On file, South Plainfield Public Library, South Plainfield, NJ.

Randolph, Larry R., 1993. Investigations Concerning the Location of 28-MI-32. On file, South Plainfield Environmental Office, South Plainfield, NJ.

Randolph, Larry R., 2003. Personnel communication with Stuart Reeve. 9 October 2003.

Reeve, Stuart A. and Katharine Forgacs, 1999. Connecticut Radiocarbon Dates: A Study of Prehistoric Cultural Chronologies and Population Trends. Bulletin of the Archaeological Society of Connecticut 62:19-66.

Ryno, Lewis, 1912. Account Book. Manuscript on File, Special Collections, Alexander Library, Rutgers University, New Brunswick, NJ.

Shelford, Victor E., 1978. The Ecology of North America. University of Illinois Press, Urbanna, IL.

South Plainfield Historical Committee, 1976. A Bicentennial History of the Borough of South Plainfield, 1776-1976/1926/1976. South Plainfield Historical Society, South Plainfield, NJ.

Spier, Leslie, 1915. Indian Remains Near Plainfield, Union County and along the Lower Delaware Valley. Geological Survey of New Jersey, Bulletin 13, Trenton, NJ.

Stanford, S.D., 2000. The Glacial Geology of New Jersey. Field Guide and Proceedings of the 17th Annual Meeting of the Geological Association of New Jersey, Trenton, NJ.

Steadman, David W., Thomas W. Stafford, Jr., and Robert E. Funk, 1997. Nonassociation of Paleoindians with AMS-Dated Late Pleistocene Mammals from the Dutchess Quarry Caves, New York. Quaternary Research 47:105-116.

Stewart, Michael, 1982. The Middle Woodland of the Abbott Farm: Summary and Hypothesis. In Practicing Environmental Archaeology: Methods and Interpretations, edited by R.W. Moeller, pp. 19-28. American Indian Archaeological Institute Occasional Paper Number 3.

Stewart, Michael, 1991. Archaeology and Environment in the Upper Delaware Valley. In The People of Minisink, edited by D. Orr and D.V. Campana, pp. 79-116. The National Park Service, Philadelphia, PA.

The History Factory, 1996. People Finding a Better Way, The Dana Heritage. The Veitch Printing Corporation, Lancaster, PA.

Trelease, Allen W., 1997. Indian Affairs in Colonial New York, The Seventeenth Century University of Nebraska Press, Lincoln, NE.

Trexler, Richard, 1976. Historic Houses and Sites, South Plainfield, N.J., 1976. On file, Middlesex County, South Plainfield, Architectural Inventory Files, Historic Preservation Office, Trenton, NJ.

USGS, 1955. Plainfield, N.J. 7.5 minute quadrangle (photorevised 1981). United States Geological Survey, Reston, VA.

Wall, J. Patrick, and Harold E. Pickergill, editors, 1921. History of Middlesex County, New Jersey, 1664-1920. Lewis Historical Publishing Company, New York, NY.

Walling, H.F., 1861. Map of Middlesex County, New Jersey. Smith, Gallup & Company, Philadelphia, PA.

Zerbe, Nancy, 1998. Lehigh Valley Railroad. Historic Preservation Historic District Survey Form. Historic Sites Inventory No. 47. Trenton, NJ.

APPENDIX A

CORNELL-DUBILIER ELECTRONICS SUPERFUND SITE RECOMMENDED ADDITIONAL ARCHITECTURAL/HISTORICAL WORK

Appendix A

Cornell-Dubilier Electronics Superfund Site Recommended Additional Architectural/Historical Work

Based upon a site visit and information provided by Foster Wheeler Environmental Corporation, John Milner Associates, Inc. (JMA) has concluded that all the buildings on the site meet the 50-year age consideration for National Register-eligibility. As a result of the site visit, JMA concluded that most of the buildings, though altered, retain the architectural integrity necessary for National Register eligibility but do not appear eligible under National Register Criterion C for architecture. Additional research concerning their historic use will be required to assess possible eligibility under either National Register Criteria A or B.

The site visit, which included interior access to some of the buildings, enabled JMA to determine the level of effort required to document the property on New Jersey Historic Preservation Office survey forms. These forms will include an assessment of the property's eligibility to the New Jersey and National Registers.

Major tasks that need to be completed to provide the information necessary to complete survey forms include the following:

- 1) Field investigation and photography of building exteriors and interiors to develop building description narratives for the building/structure attachment forms for each building.
- 2) Background research concerning property tenants and owners to assess their significance in economic and technological history. This research will concentrate on the Spicer Manufacturing Corporation, the builder of the oldest site buildings.
- 3) Background research concerning activities that took place at the facility to ascertain whether these activities were historically significant in the field. Sources are expected to include newspaper and journal articles and possible interviews with former facility employees.
- 4) Research concerning the physical evolution of the facility. Sanborn maps do not cover this area. Information on physical evolution may be found in historic photographs, aerial photographs, possible assessment records, and possible additional sources in public records.
- 5) Research concerning the evolution of uses of each building. Information from Foster Wheeler Environmental Corporation provided a snapshot of building use at one period in time. Research will be aimed at determining prior or original usage of each building, as well.

JMA recommends the final product of these activities to be a New Jersey Historic Preservation Office base survey form for the entire site, building/structure attachments for each building, National and New Jersey Register eligibility assessments for each building and the complex as a whole, and a historic district overlay form, if appropriate.

APPENDIX B

HISTORIC PRESERVATION OFFICE BIBLIOGRAPHIC ABSTRACT INFORMATION

APPENDIX B

HISTORIC PRESERVATION OFFICE BIBLIOGRAPHIC ABSTRACT INFORMATION

Author (s): Stuart A. Reeve, Ph.D.

Report Title: Stage IA Cultural Resources Investigations Report, Cornell-Dubilier Electronics

Superfund Site, South Plainfield, Middlesex County, New Jersey.

Location: The Cornell-Dubilier Electronics Superfund Site Cultural Resource Study Area

(CRCA) consists of the Hamilton Industrial Park, and contaminated residential, municipal, and commercial properties in the vicinity of the industrial park, and contaminated portions of the Bound Brook corridor from the industrial park downstream to New Market Pond in South Plainfield Borough and Piscataway

Township, Middlesex County, New Jersey.

Drainage Basin: Bound Brook and Raritan River.

Project: Cornell-Dubilier Electronics Superfund Site, US EPA Contract Number: 68-W-98-

214, Foster Wheeler Environmental Corporation, RAC II Program.

Level of Survey: Stage IA Cultural Resources Investigation

Cultural Resource's Identified: Previous archeological surveys demonstrated that prehistoric sites were located in the general area. Local residents reportedly recovered prehistoric artifacts during the early years of the Spicer Manufacturing Corporation. Industrial development and land filling had begun on this property by 1912. Subsequent landform modifications have been severe on the property of the Hamilton Industrial Park and also in surrounding residential neighborhoods. Documentary evidence indicated that flood plains are also sensitive for prehistoric sites. Former flood plains along Bound Brook have been filled, possibly destroying archeological sites or modifying site integrity. All buildings at the Hamilton Industrial Park were constructed over 50 years ago. An architectural assessment indicated that standing structures probably do not meet NRHP eligibility based on architectural integrity as listed in Criterion C, but should be evaluated for historical significance based on Criteria A and B. Standing structures at the Hamilton Industrial Park should be recorded for the New Jersey HPO and evaluated for NRHP-eligibility. Although much of the Cornell-Dubilier Electronics Superfund Site CRSA has been subjected to land filling and possible disturbances of archeological sites, the CRSA is sensitive for possible prehistoric and/or historic archeological sites. Plans for future soil testing and/or soil remedial activities should be reviewed by a qualified archeologist to evaluate potential effects on archeological sites within the CRSA.

APPENDIX C PROFESSIONAL QUALIFICATIONS

Supervising Social Scientist

EXPERIENCE SUMMARY

More than 20 years experience in the investigation and management of cultural resources including archeological and architectural properties. Responsible for performing NHPA Section 106 review studies, developing National Register of Historic Places nominations for significant historic properties, designing and implementing field investigations, performing quality assurance checks of in-house and subcontracted field investigations, providing environmental input to engineers, and creating project impact assessments. Management activities include day-to-day responsibility for technical work completed by the company staff and subcontractors, and coordinating cultural resources studies with multidisciplinary environmental analysis.

More than ten years experience as a Community Relations Specialist. Responsibilities include a full range of community relations activities associated with numerous USEPA Superfund sites, TERC Installation Restoration Programs (IRPs), USFWS and other projects.

EDUCATION

B.A. (Bachelor of Arts), Anthropology, The American University, Washington, D.C., 1972 M.A. (Master of Arts), Anthropology, Columbia University, New York, NY, 1974 M.Phil. (Master of Philosophy), Anthropology, Columbia University, New York, NY, 1975 Ph.D. (Doctor of Philosophy), Anthropology, Columbia University, New York, NY, 1981

REGISTRATIONS/CERTIFICATIONS

Registered Professional Archaeologist

Date of Issue: August 6, 1985, Date of Expiration: December 2003

TRAINING

8-Hour OSHA Hazardous Waste Health and Safety Refresher Course, 2002
24-Hour Federal Bureau of Investigation Location of Human Remains Training Course, 1991
8-Hour OSHA Hazardous Waste Health and Safety Supervisor Training, 1991
40-Hour OSHA Hazardous Waste Health and Safety Training, 1986

FOSTER WHEELER ENVIRONMENTAL CORPORATION EXPERIENCE

CULTURAL RESOURCES

Cultural Resources Lead, 2001 to Present

Western Frontier Pipeline Company, L.L.C., Western Frontier Pipeline Project Third-Party Environmental Impact Statement

Prepared cultural resources sections of a third-party Environmental Impact Statement (EIS) that evaluated construction and operation impacts of a 409-mile long natural gas pipeline, 2 new compressor stations, 9 meter stations, and appurtenant facilities in Colorado, Kansas, and Oklahoma. These facilities are under the jurisdiction of the Federal Energy Regulatory Commission (FERC). The EIS evaluated potential impacts on the environment (e.g., including cultural resources), and consided various system, major route, and above ground facility alternatives and route variations. The EIS provided



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recommendations to avoid and/or minimize environmental impacts and addressed comments raised by the public.

Cultural Resources Task Lead, 2002 - Present

U.S. Navy, Portsmouth Naval Shipyard, Jamaica Island Landfill Remediation Project, Kittery, ME

Assisting US Navy in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. Working with project engineers to develop appropriate field approaches for identifying cultural resources in areas where the proposed project may affect prehistoric and historic cultural resources that may have the potential to be eligible to the National Register of Historic Places. Hazardous materials will be removed from a landfill area, clean capping material will be introduced and new recreational area parking facilities will be developed.

Cultural Resources Task Lead, 2002

U.S. Navy, Naval Weapons Industrial Reserve Plant, Calverton, NY

Assisting US Navy in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. Working with project engineers to develop appropriate field approaches for identifying cultural resources in areas where the proposed project may affect prehistoric and historic cultural resources that may have the potential to be eligible to the National Register of Historic Places. Proposed project involving removal of hazardous materials from a landfill and restoration of former ponds and wetlands.

Cultural Resources Lead, 2002 - Present Confidential Client, Confidential LNG Project

Directed cultural resources study of three proposed pipeline marine and upland route alternatives. Data were used to evaluate the feasibility of the proposed project. Participated in selection of a preferred marine and upland pipeline route and location for a proposed off-shore LNG facility in US waters. Future studies will include upland and marine cultural resources surveys.

Cultural Resources Lead, 2001 - Present

CMS Energy, Trunkline LNG Terminal Expansion Project, Calcasieu Parish, Louisiana. Activities are designed to assist client in obtaining a Certificate of Public Convenience and Necessity from the Federal Energy Regulatory Commission (FREC) for the proposed project. Project includes cultural resources consultation with the Louisiana State Historic Preservation Officer, development of an Unanticipated Discovery Plan, Native American consultation, and development of FERC Resource Report No. 4.

Cultural Resources Lead, 2001 - Present

Dynegy, Hackberry LNG Project, Cameron and Calcasieu Parishes, Louisiana.

Managed cultural resources work designed to support client in obtaining a Certificate of Public Convenience and Necessity from the Federal Energy Regulatory Commission. Activities include consultation with the Louisiana State Historic Preservation Officer, Native American consultation, oversight of archeological and architectural surveys of the proposed pipeline right-of-way, development of an Unanticipated Discovery Plan, and development of FERC Resource Report No. 4.



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Cultural Resources Lead, 2001 - Present

South Florida Water Management District, Loxahatchee Mitigation Bank, Palm Beach County, Florida

Support project on all cultural resources issues. Conducted Phase I examination of South Parcel Mound and identified an isolated prehistoric-period artifact within a portion of Florida where few prehistoric archeological sites are known. Work was conducted in compliance with Foster Wheeler Environmental Corporation's ERP and ACOE Section 404 permits for the Loxahatchee Mitigation Bank.

Cultural Resources Lead, 2002

Rochester Gas and Electric Company, Russell Station Repowering Feasibility Study, Monroe County, NY

Evaluated the cultural resources concerns that would need to be addressed by RG&E should they decide to seek permits to repower the Russell Station, located in Greece, NY. The Feasibility Study involved consideration of the application of various Clean Coal Technologies

Cultural Resources Quality Reviewer, 2002

Southern California Gas Company, L1030 Pipeline Replacement Project, Riverside County, CA Performed a quality assurance review of a cultural resources evaluation report for a 6.2-mile natural gas transmission pipeline replacement project. Recommendations were made for organization of the report and clear presentation of information.

Cultural Resources Lead, 2002 - present

National Park Service, Jaite Paper Mill RP/EA and Restoration Project, Cuyahoga Valley National Park, Cuyahoga and Summit Counties, Ohio.

Working with a multidisciplinary team to support National Park Service efforts to evaluate the Jaite Paper Mill for potential contamination and for potential historic values that may be appropriate for future public interpretation. Tasks involve developing a remediation plan and supporting NPS in compliance with Section 106 of the National Historic Preservation Act. Foster Wheeler Environmental will assist in developing a historic preservation plan that will allow cleanup activities to take place while preserving historic values of the resource.

Cultural Resources Lead, 2001-2002

Florida Power and Light, Linfield Energy Center Permitting, Montgomery County, Pennsylvania.

Provided cultural resources input to permitting strategy for this project. Cultural resources studies conducted in support of the project included an architectural inventory and evaluation of potential historic properties within the project viewshed, and an assessment of potential archeological sensitivity of the proposed project area. Assisted FP&L and the Army Corps of Engineers in consultation with the Pennsylvania Historical and Museum Commission (functions as the State Historic Preservation Office). Assisted in developing photosimulations of the project from specifically selected locations with critical views of the project. Participated in public meetings about the project.

Cultural Resources Lead, 2000 - Present

Pennsylvania Department of Environmental Protection, GTAC-3, Valley Forge National Historic Park, Asbestos Release Site, Valley Forge, PA.

Assessed the cultural resources sensitivity of the area included within the Asbestos Release Site located within the NPS' Valley Forge National Historical Park. Developed a protocol to be followed during the course of Remedial Investigation sediment sampling that would allow work to proceed with appropriate



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attention paid to high cultural resource sensitivity areas. Assisted PADEP in developing workplans acceptable to the NPS and assisted in consultation with the Pennsylvania Historical and Museum Commission (functions as the State Historic Preservation Office).

Cultural Resources Lead, 2000 - Present

Niagara Mohawk Power Corporation, Johnstown (N. Market Street) Site, Johnstown, NY. Provided cultural resources assessment for the PSA/IRM study at the former Manufactured Gas Plant. Also provided input that resulted in development of a plan for minimizing potential project impacts to an adjacent historic property, the Johnstown Colonial Cemetery, listed on the National Register of Historic Places.

Cultural Resources Lead, 2001-2002

Calpine Corporation, Chippokes Energy Center, Surry County, VA

Lead cultural resources specialist working as part of a multidisciplinary team to obtain permits for construction and operation of a combined-cycle gas-fired electric generating plant. Provided oversight of Phase I cultural resources investigation of the proposed project area.

Cultural Resources Specialist, 2000

Florida Gas Transmission Company, FGT Phase V Expansion Project, Florida, Alabama, Mississippi

Responsible for preparing cultural resources sections of a third-party Environmental Impact Statement (EIS) for construction of 231.1 miles of 16 pipeline segments (loops, laterals, and a rehab segment), additional compression at 11 stations (including construction of 2 new compressor stations), and various metering and regulator facilities in Florida, Alabama, and Mississippi.

Cultural Resources Task Manager, 1999 - Present

U. S. Army Corps of Engineers, New Bedford Harbor Superfund Site, Massachusetts
Responsible for cultural resources activities in support of EPA's cleanup activities at the New Bedford
Harbor Superfund site. Provide assistance in compliance with Section 106 of the National Historic

Preservation act including SHPO consultation, Native American consultation, development of scopes of work and their implementation involving studies focused on upland and intertidal archeology, marine archeology, architectural history and identification of potential historic districts. Duties involve ongoing coordination with project engineers, property owners, internal resources field teams and agency officials.

Lead Cultural Resources Specialist, 1999 - Present

Central New York Oil and Gas Company, LLC, Phase IA and IB Surveys for the Stagecoach Storage Project, Towns of Owego and Nichols, Tioga County, NY

Serves as Lead Cultural Resources Specialist on this project. Work is being conducted in support of a FERC certificate and supports CNYOGC and FERC in complying with Section 106 of the National Historic Preservation Act. Responsibilities include compiling Phase IA and Phase IB studies for the project working with a subcontractor, and developing the project Plan for Addressing Unanticipated Cultural Resources Including Human Remains that will be used during project construction. She has also supported project consultation with SHPO and interested Native American representatives.

Lead Cultural Resources Specialist, 1999 - Present

PANDA Energy, Trans - Union Pipeline Project, Louisiana and Arkansas

Assist Trans-Union Pipeline L.P. in conducting all cultural resources studies in support of attaining a Federal Energy Regulatory Commission Certificate for construction and operation of an interstate gas



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pipeline in Louisiana and Arkansas. Responsibilities include developing plans to address unanticipated cultural resources, managing Native American consultation, providing overall guidance for cultural resources surveys within the project area of potential effect, and coordinating agency consultations in compliance with section 106 of the National Historic Preservation Act.

Cultural Resources Lead, 1996 - Present

U.S. Army Engineering and Support Center, Huntsville Ordnance and Explosive Center of Expertise, Former Fort Hancock EE/CA

Developed and presented a Worker Education Program geared toward familiarizing UXO experts with the potential range of cultural materials that could be expected to occur on the historic facility. Also developed a plan and procedures to be followed in the event that UXO investigators identified potential cultural resources in addition to UXO during their investigations. Former Fort Hancock is listed in the National Register of Historic Places and contains a lighthouse that is also listed on the register. Developed a program to assist U.S. Army Corps of Engineers in its compliance with Section 106 of the National Historic Preservation Act.

Cultural Resources Lead, 1995 - Present

Virginia Electric and Power Company, Roanoke Rapids and Lake Gaston Hydroelectric Relicensing Projects, Mecklenburg and Brunswick Counties, VA, and Warren, Northampton and Halifax Counties, NC

Responsible for cultural resources tasks associated with FERC relicensing of two hydroelectric projects on the Roanoke River. Tasks included consulting with SHPOs and FERC; developing appropriate scopes of work sufficient to support NHPA Section 106 documentation of project effects on cultural resources; implementing all associated cultural resources studies; providing assessment of project impacts; preparing a report of all findings, conclusions, and recommendations; and developing a cultural resources management plan.

Cultural Resources Lead, 1984 - Present

U.S. Environmental Protection Agency, Roebling Steel Company Remedial Investigation/Feasibility Study (RI/FS), Florence Township, NJ

Responsible for Stage 1 and Stage 2 cultural resources investigations. Project tasks include developing archival inventory of hundreds of documents, blueprints and miscellaneous company papers left by site corporate occupants; architectural inventory of over 90 Roebling plant structures; completion of form for Roebling Steel Company site nomination to National Register of Historic Places; and archeological testing at selected locations within the industrial site. Provides cultural resources input to project remedial engineers determining appropriate remediation for specific buildings on the property. Also works with engineers to keep open vast possibilities for adaptive property reuse.

Project Manager/Principal Investigator, 2000

United States Fish and Wildlife Service, Phase I Cultural Resources Survey for the Harding Borrow Area, Great Swamp National Wildlife Refuge, Morris County, NJ

Directed the Phase IA background literature work and development of project area archeological sensitivity analysis. She also participated in and directed the Phase IB archeological field investigation in an area proposed as a source of clean borrow material to be used in the nearby remediation of a contaminated landfill site. Conducted work in support of USFWS compliance with Section 106 of the National Historic Preservation Act. Prepared a report according to the guidelines of the New Jersey Historic Preservation Office. Identified, but did not recommend, one historic period archeological site as a possible addition to the National Register of Historic Places.



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Cultural Resources Lead, 2000

U.S. Environmental Protection Agency; Olean Wellfield Superfund site, Olean, NY Conducted Stage II cultural resources investigation in coordination with Remedial Action work assignment under the EPA RAC II Contract to complete the remediation of the site in accordance with the Remedial Design prepared under the EPA ARCS II Contract. Conducted the cultural resources investigation in Level C to determine if remnants of the Genesee Valley Canal, potentially eligible for listing in the National Register of Historic Places, were extant in the area that would undergo remediation. Work involved backhoe excavation to a depth of 14 feet in order to allow examination and recordation of a cross-section of the area slated for remediation. Planned work to reveal, if present, remnants of the former canal prior to proposed removal of soils from the Superfund site.

Cultural Resources Specialist, 2000

North Baja Pipeline, LLC, Pacific Gas and Electric Pipeline Project Riverside and Imperial Counties, Southern California, Riverside and Imperial Counties, Southern California Provided review of cultural resources report developed as part of a FERC project application.

Lead Cultural Resources Specialist, 1999 - 2001 South Carolina Pipeline Corporation; Carolinas Pipeline Project, South Carolina and North Carolina

Assisted South Carolina Pipeline Corporation in conducting all cultural resources studies in support of attaining a Federal Energy Regulatory Commission Certificate for construction and operation of a 280-mile interstate gas pipeline in South Carolina and North Carolina. Responsibilities included developing plans to address unanticipated cultural resources, Native American consultation, overall guidance for cultural resources surveys within project areas of potential effect, and coordinating agency consultation in compliance with Section 106 of the National Historic Preservation Act.

Cultural Resources Specialist, 1999 - 2000

Guardian Pipeline, L.L.C., Guardian Pipeline Project Third-party Environmental Impact Statement, Illinois and Wisconsin

Prepared cultural resources sections of a third-party Environmental Impact Statement (EIS) that evaluated construction and operation impacts of a 149-mile-long natural gas pipeline, 1 new compressor station, 7-meter stations, and appurtenant facilities in Illinois and Wisconsin (Guardian Pipeline Project) and about 38 miles of lateral pipeline in Wisconsin (WGC Lateral Line Project). The facilities associated with the Guardian Pipeline and WGC Lateral Line Projects were under the jurisdiction of the Federal Energy Regulatory Commission (FERC) and the Public Service Commission of Wisconsin (PSCW), respectively. Both facilities were analyzed in a single EIS. Responsibilities included preparing a cultural resources technical write-up evaluation of possible project impacts to cultural properties potentially eligible for the National Register of Historic Places.

Cultural Resources Specialist, 1999 - 2000

US Army Corps of Engineers New England Division, Upper Cape Water Supply Project, MA Provided cultural resources oversight for preparation of the federal and state environmental documentation for development of regional municipal water supply within the Massachusetts Military Reservation, Cape Cod, Massachusetts. Assisted in Native American Consultation. Responsible for supporting activities involving compliance with Section 106 of the National Historic Preservation Act.



Supervising Social Scientist

Cultural Resources Specialist, 1999 - 2000

Tennessee Gas Pipeline Company, Stagecoach Expansion Project, Pennsylvania, New Jersey, New York

Responsible for reviewing the cultural resources survey reports prepared for the expansion project consisting of 24 miles of new lateral, 4 miles of looping, selected replacements along 74 miles of pipeline, and a compressor station in Pennsylvania, New York, and New Jersey.

Cultural Resources Specialist, 1999 - 2000

The Mason and Hangar Group, Inc./USACE Louisville District, Fort Dix, NJ

Assessed potential project impacts to cultural resources and prepared sections for an EIS for the construction of a centralized tactical vehicle wash facility at Fort Dix.

Cultural Resources Specialist, 1999

Niagara Mohawk Power Corporation, Glens Falls Site, Glens Falls, NY

Collected data for and prepared Phase I Cultural Resources Report to satisfy conditions of a Consent Decree Order for the former MGP site.

Cultural Resources Specialist, 1999

Niagara Mohawk Power Corporation, Schenectady (Seneca St.) Site, Schenectady, NY Collected data for and prepared Phase I Cultural Resources Report to satisfy conditions of a Consent Decree Order for the former MGP site.

Cultural Resources Specialist, 1998 - 2000

Mobile District Corps of Engineers, Jackson Port EIS, Jackson, AL

Cultural resources lead for a politically sensitive fast-tract NEPA EIS. Prepared cultural resources sections of EIS.

Cultural Resources Specialist, 1998 - 1999

TriState Pipeline, L.L.C., TriState Pipeline Project Third-party Environmental Impact Statement, Indiana, Illinois, and Michigan

Prepared cultural resources sections for a third-party EIS for Tri-State's proposed 228-mile-long pipeline and appurtenant facilities in Indiana, Illinois, and Michigan. Responsibilities included evaluating project impacts to cultural resources that were potentially eligible for the National Register of Historic Places.

Cultural Resources Specialist, 1998 - 1999

Independence Pipeline and Market Link Expansion Projects Third-party EIS, Illinois, Indiana, Michigan, Ohio, Pennsylvania, and New Jersey

Prepared the cultural resources sections of a third-party EIS for multiple pipeline projects consisting of a proposed 624-mile-long pipeline in Illinois, Indiana, Michigan, Ohio, Pennsylvania, and New Jersey. Responsibilities included evaluating project impacts to cultural resources that were potentially eligible for the National Register of Historic Places.

Cultural Resources Specialist, 1998 - 1999

Millennium Pipeline Project Third-party EIS, New York

Prepared the cultural resources sections of a third-party EIS for Millennium's proposed 424-mile-long pipeline project proposed to extend from an interconnection with Trans Canada Pipelines Ltd. to the outskirts of New York City, NY. Evaluated project impacts to cultural resources that were potentially eligible for the National Register of Historic Places.



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Cultural Resources Specialist, 1998

FERC, Amended North Alabama Pipeline Project, Alabama

Prepared the cultural resources sections of a Supplemental Environmental Impact Statement (EIS) for Southern Natural Gas Company's Amended North Alabama Pipeline Project. Project facilities included 26.9 miles of 16-inch-diameter pipeline, 0.2 mile of 12-inch-diameter pipeline, and two-meter stations in Morgan, Madison, and Limestone Counties, Alabama. Responsibilities included evaluating project impacts to cultural resources that were potentially eligible for the National Register of Historic Places and addressing comments raised by the public.

Cultural Resources Specialist, 1998

Niagara Mohawk Power Corporation, Johnstown (N. Market St.) Site, Johnstown, NY Collected data for and prepared Phase I Cultural Resources Report to satisfy conditions of a Consent Decree Order for the former MGP site.

Cultural Resources Specialist, 1997 - 1998

FERC, Portland Natural Gas Transmission System EIS, Vermont, New Hampshire, and Maine Prepared cultural resources sections for EIS for 242 miles of pipeline in Vermont, New Hampshire, and Maine.

Cultural Resources Specialist, 1997

FERC, Destin Pipeline Project, Gulf of Mexico and Pascagoula, Mississippi

Responsible for preparing the cultural resources section of EIS that included 75.6 miles of offshore pipeline in the Gulf of Mexico (in Federal, Alabama and Mississippi state waters), 117.7 miles of onshore pipeline in Mississippi, 2 new compressor stations, 7 new meter stations, associated facilities (liquids slug catcher, offshore gathering platform), and the non-jurisdictional gas processing plant in Pascagoula, Mississippi.

Cultural Resources Specialist, 1996 - 1997

FERC; SeaBoard Expansion and Niagara Expansion Projects, New York, Pennsylvania, and New Jersey

Prepared the cultural resources sections of an EA for a project involving multiple applicants, facilities, and states. Proposed facilities included Transcontinental Gas Pipe Line Corporation's looping of 22.8 miles and replacement of 6.3 miles of pipeline, and upgrade/modification of existing aboveground facilities in Pennsylvania and New Jersey; National Fuel Gas Supply Corporation's modification of two existing compressor stations and 7 existing metering and regulating stations in New York and Pennsylvania; and Tennessee Gas Pipe Line Company's modification of an existing compressor station in New York. Responsible for evaluating project impacts to cultural resources that were potentially eligible for the National Register of Historic Places and for addressing comments raised by the public.

Cultural Resources Specialist, 1995 - 1997

FERC, Granite State LNG Project, Wells, ME

Prepared the cultural resources sections of an Environmental Impact Statement (EIS) for Granite State's proposed LNG Storage Facility in Wells, Maine.



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Lead Cultural Resources Specialist, 1995 - 1996

Pennsylvania Electric Company, Seward Generating Station Project

Conducted Phase I cultural resources investigation of historic generating station to assess impacts of proposed expansion project. Focus of study involved both archeological and architectural resources. Produced a report for review by Pennsylvania State Historic Preservation Office.

Cultural Resources Specialist, 1995

FERC, Steuben Gas Storage Company, Thomas Corners Gas Storage Field Project, New York Prepared the cultural resources sections of an EA for the proposed development of a gas storage field and construction of a new 3,284 hp compressor station and 6.45 miles of 12-inch diameter pipeline in Steuben County, New York.

Cultural Resources Specialist, 1995

Northwest Pipeline Company, Animas-LaPlata Pipeline Relocation, CO

Responsible for assisting Northwest Pipeline in complying with Federal Energy Regulatory Commission's (FERCs) cultural resources requirements for pipeline certification. Activities included summarizing all extant cultural resources information into Resources Report No. 4 document for FERC. Project involved the relocation of an extant pipeline to a new location in anticipation of the proposed Bureau of Reclamation's proposed Ridges Basin Dam and Reservoir Project that, if built, will cover approximately six miles of the extant pipeline.

Cultural Resources Specialist, 1995

Northwest Pipeline Company, Expansion II Project, Washington, Wyoming, Oregon, and Idaho

Developed work scope and secured qualified subcontractors to serve as Project Forensic Anthropologists. Offered to provide services in the event that unanticipated human remains and/or cultural materials were discovered during the course of proposed Northwest Pipeline construction. Assisted Task Lead in developing multiple Cultural Resources Mitigation Plans and Procedures, which were tailored for proposed facilities in Washington, Wyoming, Oregon, and Idaho.

Cultural Resources Specialist, 1994 - 1999

Federal Energy Regulatory Commission, Cultural Resources Industry Outreach Training Assisted FERC in providing outreach training to pipeline industry professionals. Tasks included preparing a workbook and an eight-hour presentation focused on educating pipeline industry professionals about cultural resources and FERC's guidelines for cultural resources investigations. Also provided assistance to FERC by responding to written and oral questions from pipeline industry professionals.

Cultural Resources Lead, 1994

U.S. Army Corps of Engineers, Baltimore District, Environmental Analysis and Documentation of U.S. Army Research Laboratory Materials Directorate Interim Facilities, Newark, DE, and Dundalk and Hunt Valley, MD

Assessed potential impacts to three potential sites slated to accommodate the United States Army Research Laboratory interim move from Watertown, Massachusetts. The facilities would ultimately be moved into nearby constructed or renovated facilities at Aberdeen Proving Ground, Maryland. Prepared Section 106 cultural resources documentation.



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Cultural Resources Specialist, 1994

FERC, Liberty Pipeline Project, Kentucky, Indiana, Pennsylvania, New Jersey and New York Responsible for the cultural resources sections of the draft Environmental Impact Statement (EIS) for the 269 mile-long Liberty Pipeline Project in Kentucky, Indiana, Ohio, Pennsylvania, New Jersey and New York.

Cultural Resources Specialist, 1993

National Aeronautics and Space Administration, Marshall Space Flight Center Environmental Compliance Evaluation, AL

Conducted an environmental compliance assessment of Marshall Space Flight Center's activities with regard to requirements of the National Historic Preservation Act (NHPA). Reviewed and compared all applicable regulations with information collected during a site visit and through telephone interviews. Stated observations about deficiencies in NHPA compliance and provided recommendations that would correct all deficiencies.

Cultural Resources Specialist, 1993

AlliedSignal, Inc., Sumitomo Machinery Corporation, Teterboro Facility Cleanup, Teterboro, NJ

Evaluated potential impacts of proposed removal of radiologically contaminated soils on cultural resources that were eligible for National Register inclusion. Examined the project area, located within the New Jersey Meadowlands, during a walkover survey. Consulted historical documentation of area development along with historical cartographic sources. Of particular interest was a historic drainage ditch that may have related to early attempts to drain the Meadowlands in preparation for agricultural use.

Environmental Lead, 1993

Triborough Bridge and Tunnel Authority, Throgs Neck Bridge Toll Plaza CEQR Responsible for coordinating multidisciplinary environmental assessment of a proposed structural expansion of TBTA facilities.

Cultural Resources Specialist, 1992 - 1993

Tennessee Valley Authority, EIS on the Resource Management Plan for TVA's Land Between the Lakes, Western Kentucky and Tennessee

Provided comments and recommendations to TVA regarding their draft of the EIS for the Land Between the Lakes (LBL) Resource Management Plan. Worked with TVA staff to strengthen sections that addressed cultural resources management within the LBL facility.

Cultural Resources Lead, 1992.

Chevron, South Plainfield Remediation Project, South Plainfield, NJ

Designed the strategy and provided oversight for a study which produced a Site Fill History based on archival, cartographic, and historic photographic resources.

Cultural Resources Specialist, 1992

Edison Township, Edison-Tylor Estates Compliance Review, Edison Township, NJ Provided cultural resources compliance review services to township in New Jersey for an ongoing archeological data recovery excavation. Responsibilities included field inspections, field investigation reports, identification of potential problems, and recommendations.



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Cultural Resources Lead, 1992

U.S. Army Corps of Engineers, Baltimore District, Army Research Laboratory Relocation, Adelphi, MD

Responsible for Environmental Assessment (EA) of the sites at Adelphi Laboratory Center where construction was proposed to accommodate incoming Army Research Laboratory facilities. Conducted archeological field investigations of early 20th century residential site to determine its potential National Register eligibility.

Cultural Resources Lead, 1991 - 1992

Crown Energy, L.P. and Vista Energy, L.P., Crown/Vista Energy Project, West Deptford (Gloucester County), NJ

Responsible for Phase I and II archeological investigations at site proposed for development of a coal-fired electricity generating station. Project resulted in the identification of extensive prehistoric cultural resources within the study area. Conducted project in compliance with the New Jersey Waterfront Development Act, Coastal Permit Program Regulations, and Rules on Coastal Zone Management.

Cultural Resources Lead, 1991 - 1992

U.S. Army Corps of Engineers, Baltimore District, Army Research Laboratory Environmental Impact Statement (EIS), Aberdeen, MD

Responsible for Environmental Impact Assessment of facilities slated to be moved to Aberdeen Proving Ground from Watertown, Massachusetts as part of the Base Realignment and Closure (BRAC) legislation. Assessed both the archeological potential of project areas and the possible impacts of the proposed project to potentially National Register-eligible World War II-era structures.

Cultural Resources Lead, 1991

Oxbow Power Corporation, Oxbow Wheatfield Greenhouse Site Project, North Tonawanda, NY Responsible for Phase 1A and 1B cultural resources investigations of proposed greenhouse facilities in Wheatfield, New York that would use steam power generated from a nearby cogeneration facility. Discovered a solitary prehistoric projectile point within the proposed project area.

Cultural Resources Lead, 1990

Cogen Technologies, Linden Cogeneration Project, Linden, NJ and Staten Island, NY Evaluated the archeological potential of the Staten Island portion of a proposed cogeneration project in Linden, New Jersey with an associated underwater transmission line to Staten Island, New York. Successfully presented case to New York State Historic Preservation Office that extant documentation of disturbance in project impact area precluded the need for field investigations of New York portion of project area.

Cultural Resources Specialist, 1990

Municipal Electric Authority of Georgia (MEAG), Site Selection Study, Georgia Worked with a multidisciplinary team to identify sites within the State of Georgia suitable for accommodating a 200-400-megawatt (MW) peaking combustion turbine unit. Defined exclusion criteria for each discipline including cultural resources. Finally identified three suitable sites that satisfied all criteria.



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Cultural Resources Specialist, 1990

Energy Initiatives, Inc., Bermuda Hundred Cogeneration Project, Chesterfield County, VA Conducted a visual assessment of the impacts of a proposed cogeneration facility on ante-bellum plantation sites within the James River Valley in Virginia that were eligible for inclusion in the National Register.

Environmental Lead, 1989 - 1994

New Jersey Water Supply Authority, Lumberville Wing Dam Rehabitation Environmental Assessment, Lumberville, PA and Bulls Island, NJ

Responsible for a multidisciplinary team that conducted an environmental assessment of the proposed rehabilitation of the Lumberville Wing Dam. The dam was associated with the Delaware and Raritan Canal, which were listed on the National Register. Project included both conducting an upland archeological field investigation and recording a National Register eligibility assessment of the 19th century Lumberville Wing Dam following its exposure through dewatering of the Delaware River. Coordinated the dam cultural resources study with engineering rehabilitation tasks. Conducted work to assist client in compliance with Section 106 of National Historic Preservation Act.

Cultural Resources Specialist, 1989 - 1990

Jersey Central Power and Light Company, Red Bank-Aberdeen 230 kV Transmission Line, Monmouth County, NJ

Responsible for evaluating effects of project construction on historic architectural and archeological sites, evaluating visual impacts to a National Register Historic District, preparing NHPA Section 106 compliance documentation, and preparing New Jersey Historic Sites Encroachment Application.

Cultural Resources Specialist, 1989 - 1990

Federal Energy Regulatory Commission; Cultural Resource Task Assignments; Idaho and Maine

Provided cultural resources input to EISs for the relicensing of both the Twin Falls/Auger Falls/Star Falls Hydroelectric Projects (Idaho) and the Kennebec Hydroelectric Plant relicensing (Maine).

Principal Investigator, 1989

TAMS, Arnold Street Site Archeological Survey Project, Staten Island, NY

Responsible for conducting an archeological survey and testing at the site of proposed United States Navy Homeport housing site. One goal of the testing was to confirm the presence/absence of potential cultural resources identified on the basis of prior documentary research. Cartographic sources had indicated the project location as the former site of a house complex designed by famed architect Alexander Jackson Davis and it was anticipated that the house might also have had associated gardens possibly designed by landscape architect Andrew Jackson Downing.

Project Manager, 1989

Harborview Associates, Phase 1A Cultural Resources Study, Staten Island, NY

Developed and implemented scope of work including archeological background research, field visit and project impact assessment at target development site. Prepared a report for presentation to Landmarks Preservation Commission.



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Cultural Resources Task Leader, 1989

Hackensack Meadowlands Development Corporation, Work Scope for Hackensack Meadowlands Special Area Management Plan EIS, New Jersey

Developed cultural resources work scope for HMDC EIS for the New Jersey Meadowlands.

Project Archeologist, 1989

North Carolina Low Level Radioactive Waste Siting Authority, Site Selection Environmental Criteria, North Carolina

Responsible for collecting and evaluating cultural resources information for use in the selection of alternative potential project sites. Developed cultural resources criteria that were applied to multidisciplinary comparisons of multiple sites. Based on comparisons to each other and against the defined criteria (from various disciplines), sites were ordered according to a preferential scale from most desirable to least desirable.

Cultural Resources Specialist, 1988 - 1993

Federal Energy Regulatory Commission, Multiple Task Assignments, Nationwide Supported FERC by preparing cultural resources applicant data requests and by writing sections for numerous EISs and EAs. Also assisted FERC in compliance reviews of numerous projects including ANR Pipeline Project (Wisconsin, Michigan, Illinois, Ohio), Ohio-Indiana Pipeline Project, COCO Storage Replacement Project, Riverside Storage, ARKLA EA, FLEX-X EA, EF Expansion EA, 95/96 SE Expansion EA, Roanoke Expansion Project, East Leg Expansion Project, Easton South Project, CNG-TL-470X5 Project, the Liberty Pipeline (New York, New Jersey, Ohio, Pennsylvania, Indiana, Kentucky) Line L Replacement EA, Thomas Corner Gas Storage EA, and Majorsville Herd Crawford Storage EA. Conducted field compliance checks, prepared project-related documentation for the Advisory Council on Historic Preservation, and developed PMOA and MOA documents.

Cultural Resources Specialist, 1988 - 1989

Taiwan Environmental Protection Agency, Environmental Impact Assessment Short Course for Taiwan EPA

Developed and presented lectures to representatives of Taiwan EPA about cultural resources management in the United States. Emphasized issues relating to both the legislative base and the techniques applied. Presenters representing other disciplines also participated as part of a team of lecturers.

Environmental Lead, 1987 - 1988

New Jersey Water Supply Authority, Stormwater and Sediment Control Study of Delaware and Raritan Feeder Canal, Hunterdon and Somerset Counties, NJ

Responsible for coordinating environmental input for a multidisciplinary feasibility study to control, reduce or eliminate stormwater and sediment from within the Delaware and Raritan Canal Feeder between Kingwood Township and Upper Ferry Road. Assessed impacts of various engineering alternatives on cultural resources including the Canal, Canal-associated resources and prehistoric cultural resources. Participated in presentations to the client, state agencies, the D&R Canal Commission, and the public.



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Cultural Resources Lead, 1986 - 1988

New Jersey Department of the Treasury, Division of Building and Construction, Imlaystown Dam Rehabilitation, Imlaystown, NJ

Responsible for coordination of environmental input to a multidisciplinary project to provide a design for dam and spillway rehabilitation, and development of a recreation plan in the Imlaystown Historic District, Monmouth County, New Jersey. Directly responsible for assessing impacts of the proposed project on the historic district. Services included supervision of historical research and archeological field investigations, laboratory analyses, interaction with project engineers, and preparation of documentation for use by the State Historic Preservation Office in support of a Historic Sites Encroachment Application.

Cultural Resources Specialist, 1987

Jersey Central Power and Light, Environmental Assessment of 230 kV Substation and Transmission Line Near Taylor Lane, Middletown Township, NJ

Performed assessment of the potential impacts of the proposed project on archeological and standing historic architectural resources.

Cultural Resources Specialist, 1987

Lawler, Matusky and Skelly, Engineers, Stage 1B Archeological Investigation of Northport Marine Center, Northport, NY

Conducted Stage 1B archeological field investigation within an area of proposed construction. Test trenches excavated using a backhoe revealed historic and prehistoric artifacts in a disturbed fill context. No in situ artifactual materials were recovered.

Cultural Resources Specialist, 1987

New Jersey Natural Gas, Proposed Office Building EIS, Rockaway Township, NJ Conducted a Phase I archeological investigation of an area proposed for development. Work was conducted in compliance with Rockaway Township, New Jersey cultural resources regulations. Shovel tests revealed that the site is covered by at least two feet of fill. Concluded that the project area was not archeologically sensitive for prehistoric or historic archeological resources. Visual inspection of the surrounding area demonstrated a lack of National Register-eligible properties that would be affected by the proposed construction.

Assistant Cultural Resources Lead, 1986 - 1987

U.S. Army Corps of Engineers, South Atlantic District, Archeological Overview and Management Plan for Military Ocean Terminal, Sunny Point (MOTSU), NC Responsible for day-to-day operation of project activities associated with development of a historic preservation plan.

Cultural Resources Lead, 1986 - 1987

U.S. Army Corps of Engineers; New York District, New Sanitary Landfill Siting Study and EIS, Fort Drum (Jefferson County), NY

Participated in multidisciplinary site selection study and developed cultural resources criteria that were used to distinguish among several alternative potential sites. Also responsible for planning and executing an archeological survey of the selected proposed sanitary landfill site.



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Assistant Project Coordinator, 1986 - 1987

National Park Service, World War II in Alaska: A History and Resources Management Plan, Alaska

Responsible for coordinating subconsultant input for a cultural resources management plan for all World War II Department of Defense (DoD) debris in Alaska. Conducted project as part of the Corps of Engineers' Defense Environmental Restoration Project.

Cultural Resources Specialist, 1986

Marcal Paper Mills, Marcal Paper Cogeneration Project, Elmwood Park (Bergen County), New Jersey

Evaluated archeological sensitivity of proposed project site. Evaluation included literature review, cartographic study, and examination of site borings for evidence of buried land surfaces and presence of cultural resources.

Material Longevity Specialist, 1985

Anonymous Client

Provided results of documentary investigations into the uses of concrete and its potential survival over time. Information was used to support selection of preferred alternative site capping design at a contaminated site and was used to support court testimony.

Cultural Resources Lead, 1985

New York State Department of Environmental Conservation, Cannonsville Reservoir Enlargement Study, New York, NY

Assessed environmental impacts of the proposed project on cultural and paleontological resources. Prepared sections of a SEQR EIS document.

Cultural Resources Specialist, 1985

Van Note Harvey and Associates, Canal Road Sewer Easement, West Windsor, NJ
Directed literature search, field investigation and report preparation for a Phase I study evaluating the potential impact of a proposed sewerline on archeological cultural resources and the adjacent Delaware

and Raritan Canal.

Assistant Cultural Resources Lead, 1984 - 1988

New York Power Authority, Sound Cable Project, Westchester and Nassau Counties, NY Worked with a multidisciplinary team to evaluate the potential impacts of the proposed project. Participated in route selection for the proposed underground transmission line, upland archeological investigation, inventory and evaluation of National Register-eligible structures in the project area, and conducted underwater survey for prehistoric sites utilizing vibracore testing technology and application of soil chemistry tests to identify prehistoric sites.

Assistant Project Manager, 1984 - 1985

Virginia Electric and Power Company, Site Selection Study for Coal-Fired Electric Generating Facility, Mecklenburg, Buckingham and Greensville Counties, VA, and Bertie County, NC Responsibilities included assuring project quality; coordinating with client, subconsultants and state agencies; and preparing reports. Cultural resources identification and evaluation program included extensive archeological surveys and preparation of environmental assessments of the four potential major power plant sites.



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Assistant Project Manager, 1984 - 1985

National Park Service, Historic Preservation Plan, Fort Drum (Jefferson County), NY Responsible for supervising analysis of the results of an archeological survey of 107,000-acre Fort Drum. Also assisted in developing a cultural resources preservation plan for the fort.

Cultural Resources Specialist, 1984

Office of Nuclear Waste Isolation, Battelle Memorial Institute, Evaluation of Environmental Impacts on Canyonlands National Park Due to Proposed Nuclear Waste Repository, Utah Evaluated the effect of construction and operation of a proposed nuclear waste repository in Lavendar and Davis Canyons in Utah on cultural resources in Canyonlands National Park. Previously identified resources included numerous Native American rock art sites and habitation sites. Special consideration was given to the potential effects of salt and acid rain on masonry and rock, effects to sites due to increased accessibility, and effects on cultural resources of vibrations from blasting sites located two to three miles away.

Cultural Resources Specialist, 1984

Holyoke Energy Recovery Company (HERCO), Waste-to-Energy Project, Holyoke, MA
Evaluated potential impacts of adverse air quality to historic structures in the vicinity of a proposed
energy recovery facility. Project area included numerous historic structures that were listed in or eligible
for the National Register. Prepared cultural resources sections of Environmental Impact Report (EIR)
for review by The Commonwealth of Massachusetts Department of Environmental Quality Engineering,
Western Region.

Cultural Resources Specialist, 1984

United Illuminating, Environmental Compatibility Study for 115 kV Transmission Line, Birdgeport, CT

Evaluated the impacts of a proposed transmission line to historic and pre-historic cultural resources. Provided responses to interrogatories relative to cultural resources.

Cultural Resources Specialist, 1983 - 1984

Alaska Power Authority, Susitna Hydroelectric Project, Susitna River Valley, AL Responsible for reviews of cultural resources scopes of work, field investigation results, project impact assessments and site mitigations. Assisted Cultural Resources Lead in day-to-day management issues.

Cultural Resources Specialist, 1983

U.S. Department of the Army, Environmental Assessment of Construction Projects, Fort Riley, KS

Worked as part of a multidisciplinary team to study potential environmental effects of proposed construction projects at Fort Riley. Cultural resources concerns included numerous properties located within Fort Riley that were listed in or eligible for the National Register.

Assistant Technical Manager, 1982 - 1988

National Park Service, DARCOM Archeological Overviews and Management Plans Project, Vermont, Connecticut, Massachusetts, New York, New Jersey, Pennsylvania, Maryland, and Virginia

Responsible for the preparation of historical and archeological overviews and management plans for 19 United States Army DARCOM installations located throughout the northeastern United States including Tobyhanna Army Depot, Scranton Army Ammunition Plant and Letterkenny Army Depot in



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Pennsylvania; Watervliet Arsenal, Seneca Army Depot, and Rotterdam Housing Areas Nos. 1 and 2 in New York; Natick Research and Development Laboratories, and Army Materiel and Mechanics Research Center in Massachusetts; Picatinny Arsenal, Fort Monmouth (Main Post), Camp Charles Wood and the Evans Area in New Jersey; Stratford Army Engineer Plant in Connecticut; Ethan Allen Firing Range in Vermont; Harry Diamond Laboratories - Adelphi and Blossom Point Test Site, and Aberdeen Proving Ground in Maryland; and Woodbridge Research Facility in Virginia. Project duties included coordinating the work of five subcontractors, writing management sections of the overview documents, and editing other sections contributed by co-authors.

Cultural Resources Lead, 1982 - 1983

Consolidated Edison, Coal Combustion Residue Disposal Facility Site Selection Study, New York State and New Jersey

Responsible for evaluating the archeological sensitivity of a number of large land tracts in New York State and New Jersey considered for selection as a waste disposal facility. Worked with multidisciplinary team to establish preferential ordering of the subject sites according to criteria defined by the team.

COMMUNITY RELATIONS

Community Relations Specialist, 2000 - Present

Pennsylvania Department of Environmental Protection, GTAC-3, Valley Forge National Historic Park Asbestos Release Site, Valley Forge, PA

Responsible for preparing a community relations plan, fact sheets and providing other support to client during performance of a remedial investigation field effort, preparation of a remedial investigation report, and feasibility study report for a 482-acre site within the Valley Forge National Historic Park where asbestos contamination at concentrations up to 70% were found.

Community Relations Specialist, 1997 - Present

U.S. Army Engineering and Support Center, Huntsville, Former Fort Hancock Ordnance and Explosive EE/CA, Sandy Hook, NJ

Responsible for developing the community outreach plan for this UXO investigation program. Also provided various community relations support including assisting at community meetings with local officials and developing display materials for public meetings.

Community Relations Specialist, 1991 - Present

U.S. Environmental Protection Agency, ARCS II Programs

Responsible for developing and implementing community relations plans and activities related to proposed remediation of numerous Superfund hazardous waste sites including Rockaway Boro RI/FS and Cornell-Dubilier RI/FS..

Community Relations Specialist, 1999 - 2000

Port Authority of New York and New Jersey

Responsible for conducting interviews with PA NY NJ to identify the breadth of issues and anticipated stakeholders associated with a potential project in the New York Harbor area.

Community Relations Specialist, 1999 - 2000

U.S. Fish and Wildlife Service; Great Swamp National Wildlife Refuge, Morris County, NJ Responsible for conducting research regarding facility history, conducting community interviews, assisting in preparing community information meetings, preparing public notes and display materials, and



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making presentations to community members about ongoing investigations at the Harding Landfill Remediation Project located within the USFWS Great Swamp National Wildlife Refuge..

Program Facilitator, 1998

Foster Wheeler Environmental, Environmental Legislation and Standards Management Training Program, NY

Responsible for overseeing the implementation of a course presented to oil industry professionals who came to the US from Nigeria for the program.

Community Relations Specialist, 1996 - 2000

U.S. Fish and Wildlife Service, Phase II Remedial Investigation, Operable Unit 3 of the Asbestos Dump Superfund Site, Great Swamp National Wildlife Refuge, Morris County, NJ Responsible for implementing the project community relations program for this Superfund site located within the Great Swamp National Wildlife Refuge. Established and maintained two information repositories, wrote and produced fact sheets for distribution to the public, organized public meetings and open house sessions for local stakeholders, monitored project telephone "hotline", prepared news releases and newspaper notices, updated project mailing list, and provided other community relations support as needed.

Community Relations Specialist, 1995

U.S. Army Corps of Engineers, Albuquerque District, TERC, Holloman Air Force Base, New Mexico

Developed Community Relations Plan for the IRP for the Holloman Air Force Base.

Community Relations Specialist, 1994

U.S. Army Corps of Engineers; Albuquerque District, Total Environmental Restoration Contract (TERC), Kirtland Air Force Base, Albuquerque, NM

Developed Community Relations Plan for the Installation Restoration Program (IRP) for the Kirtland Air Force Base.

Community Relations Specialist, 1988 - 1991

U.S. Environmental Protection Agency, REM III Programs

Responsible for developing and implementing community relations plans and activities related to the proposed remediations of numerous Superfund hazardous waste sites.

PREVIOUS EXPERIENCE

Cultural Resources Specialist, 1982 - 1983

U.S. Army Corps of Engineers - New York District, Westside Highway Project, New York Reconstructed former shorelines of the Hudson River based on study of core samples collected from shoreline and submerged areas along the present-day shore. Based on reconstructions of submerged topography, developed predictions of areas that had characteristics typical of known prehistoric settlement in the northeast. Evaluated areas for their likelihood of inclusion in the list of National Register prehistoric sites.



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Independent Consultant/Principal Investigator, 1981

U.S. Army Corps of Engineers - New York District, New York Harbor Collection and Removal of Drift Project, DACW 51-81-M-1150, Hoboken to North Bergen Reach, NJ

Conducted background literature review and field examination of cultural resources within the Hoboken to North Bergen Reach of the Hudson shoreline. Identified resources that were eligible for inclusion in the National Register including features associated with existing properties listed in the National Register, such as the Hoboken Train and Ferry Terminal

Principal Investigator, 1980 - 1982

U.S. Army Corps of Engineers - New York District, Ramapo River Flood Control Project, DACW 51-81-M-1336, Newton, NJ

Conducted background literature review and field investigation of proposed flood control project along the Ramapo River near Oakland, New Jersey.

Field Director, 1979

Rockland County Sewer Authority, Phase I Cultural Resources Investigations of Proposed Sewer Line Right of Ways, Rockland County, NY

Directed cultural resources reconnaissance surveys of proposed sewage collection systems in Rockland and Ramapo, New York.

Investigator and Archeological Technician, 1978

Bureau of Land Management (Las Cruces District), Las Cruces, NM

Planned and performed all in-house project-related field surveys. Participated in an intensive National Register-area nomination survey. Performed related laboratory and photographic work. Prepared cultural resources sections of Environmental Analysis Record for Oliver Lee Memorial State Park.

University Professor, 1975-1984

American University, William Paterson College, Rutgers University, New York University, and City University of New York's Baruch College, Various Locations

Served on the faculties of American University, William Paterson College, Rutgers University, New York University and the City University of New York's Baruch College. Taught Archeology, Anthropology, and other related courses.

Archeological Crew Member, Summer Months 1973

New York Department of Transportation, I-88 Archeological Reconnaissance Survey, Buffalo, NY

Participated in reconnaissance survey of portions of proposed I-88 right-of-way.

Field Researcher, 1971-1977

The Catholic University, Franklin and Marshall College, The American University, Various Locations

Field experience in prehistoric and historic archeology in Virginia (Thunderbird Archeological Project, Front Royal, Virginia, through The Catholic University of America), and Pennsylvania (Faucett Site Archeological Project, Bushkill, Pennsylvania, through Franklin and Marshall College) and Shawnee Minisink Site, Shawnee-on-Delaware, Pennsylvania (through The American University).



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PUBLICATIONS & PRESENTATIONS

Publications:

McNett, C.W. Jr., B.A. McMillan, and S.B. Marshall. 1977. The Shawnee-Minisink Site. <u>In</u>: W.S. Newman and B. Salwen (eds.), pp. 282-296. *Amerinds and Their Paleoenvironments in Northeastern North America*. Annals of the New York Academy of Sciences, vol. 288.

Marshall, S.B. 1980. Descriptive Artifact Categories and Implied Function: A Problem in Archaeological Semantics. Paper presented at Annual Meeting, Society for American Archaeology, Philadelphia, Pennsylvania.

Marshall, S.B. 1982. Aboriginal Settlement in New Jersey During the Paleo-Indian Cultural Period c.a. 10,000-6000 B.C. In: O. Chesler (ed.). New Jersey's Archaeological Resources from the Paleo-Indian Period to the Present: A Review of Research Problems and Survey Priorities. Office of Cultural and Environmental Services, New Jersey Department of Environmental Protection.

Marshall, S.B. 1984. Survivals of Prehistoric and Early Historic Archaeological Resources in Urban Contexts. In: O. Chesler (ed.). Selected Papers in the Identification, Evaluation, and Protection of Cultural Resources. Office of Cultural and Environmental Services, New Jersey Department of Environmental Protection.

Marshall, S.B. 1985. Paleo-Indian Artifact Form and Function at Shawnee Minisink. In: C.W. McNett Jr. (ed.). Shawnee Minisink: A Stratified Paleo-Indian Archaic Site in the Upper Delaware Valley of Pennsylvania. Academic Press, California.

Marshall, S.B. 1993. Review of "Early Paleo-Indian Economies of Eastern North America, Research in Economic Anthropology, Supplement 5, Kenneth Tankersly and Barry L. Isaac, editors." *American Antiquity*. 58(1):172-173.

Presentations:

Klein, J.I. and S.B. Marshall, 2002. Ethical Responsibility of Industrial Archaeologists to Communities with Toxic Wastes. Paper presented to Annual Meeting of the Society for Industrial Archaeology, Brooklyn, New York

Marshall, S.B. 1999. From the Spirit of Exploration to the Business of Archeology: Two surveys of the Roanoke Rapids and Gaston Hydropower Project. Paper presented Middle Atlantic Archeological Conference, Annual Meeting in Harrisburg, PA.

Marshall, S.B. 1995. Transportation Projects, Cultural Resources, and Hazardous Waste. Paper presented to Transportation Research Board 74th Annual Meeting held in Washington, D.C.

Klein, J.I. and S.B. Marshall. 1989. Hazardous Site Archaeology: Problems, Issues and Concerns. Paper presented to the First Joint Archaeological Congress, Baltimore, Maryland.



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PROFESSIONAL ACCOMPLISHMENTS

Awarded Certificate of Appreciation for Assistance in implementing community outreach efforts in October 1999 from the United States Fish and Wildlife Service.

PROFESSIONAL AFFILIATIONS

Society for American Archaeology
Professional Archaeologists of New York City



EXPERIENCE SUMMARY

Stuart A. Reeve has more than 25 years experience in professional archeology, including prehistoric and historic archeological studies with federal and state agencies, and cultural resources consulting in the Middle Atlantic, New England, Southeast, Rocky Mountains and Southwest regions. Reeve has been responsible for all aspects of cultural resource management plans, cultural resources sensitivity analyses, archeological field investigations, collection analyses and curation, technical and scientific report preparation, and coordination of multi-disciplinary environmental teams.

Reeve maintains project management duties, and assists senior personnel in planning and directing field investigations, preparing reports and proposals, providing technical support, and reviewing cultural resource phases of projects and reports.

EDUCATION

Ph.D. (Doctor of Philosophy), Anthropology/Archeology, State University of New York, Albany, NY, 1986

B.A. (Bachelor of Arts), Anthropology, State University of New York, Binghamton, NY, 1971

TRAINING

40-Hour OSHA Hazardous Waste Health and Safety Training, May 2001 8-Hour OSHA Annual Refresher Training

FOSTER WHEELER ENVIRONMENTAL CORPORATION EXPERIENCE

Archeologist/Cultural Resources Specialist, October 2002-Present

Department of the Navy Engineering Field Activities-Northeast, Jamaica Island Landfill, Portsmouth Naval Shipyard, Kittery, Maine

Compiled environmental, archeological and historic data for an archeological sensitivity model of prelandfill landforms and conducted archeological testing at sensitive areas.

Archeologist/Cultural Resources Specialist, October 2002

Bay Energy LLC, Generating Station, Gowanus Canal, Brooklyn, New York

Compiled a cultural resources sensitivity model and report for a draft EIS for a proposed generating station, submitted to the New York State Department of Environmental Conservation.

Archeologist/Cultural Resources Specialist, August to November 2002

U.S. Environmental Protection Agency Region 2, Rockaway Borough Wellfield Superfund Site, Rockaway Borough, Morris County, New Jersey

Compiled historic and land-use data for 62 properties within Rockaway Borough Wellfield Superfund Site, including industrial sites and portion of the Morris Canal. Completed a cultural resources report detailing historic and archeological sensitivity of an urban community.



Social Scientist

Archeologist/Cultural Resources Specialist, June 2002-Present

Pennsylvania Department of Environmental Protection, Valley Forge National Park, Pennsylvania

Conducted archeological monitoring for environmental testing in historic industrial areas of Valley Forge National Park.

Archeologist/Cultural Resources Specialist, May 2002-Present

Royal D'Iberville Casino and Marina, Draft EIS, Cultural Resources. Biloxi and D'Iberville, Mississippi

Conducted background research and prepared a technical cultural resources report describing sensitivity for prehistoric and historic archeological sites, and architectural resources at three alternative development sites along the Mississippi Gulf Coast.

Archeologist/Cultural Resources Specialist, February 2002-Present

Florida Light and Power; Tesla Power Project, Alameda and San Joaquin Counties, California Senior historical archeologist for cultural resources issues pertaining to California Energy Commission (CEC) power plant licensing, conducted archeological testing at an early 20th-Century ranch, completed professional cultural survey report for the power plant site and lateral facilities, a Phase 1 archeological report, and compiled CEC data requests for cultural resources.

Archeologist/Cultural Resources Specialist, October 2001-Present

Department of the Navy Engineering Field Activities-Northeast, Naval Weapons Industrial Reserve Plant, Site 1-Northeast Disposal Area

Conducted Phase 1 archeological testing and monitoring of machine access and debris storage area, and conducted monitoring for buried archeological sites for land fill remediation. Completed a technical archeological survey report.

Archeologist/Cultural Resources Specialist, December 2001-February 2002

Calpine, Chippokes Energy Center, Surry County, Virginia

Conducted background research and archeological sensitivity modeling for prehistoric Native American sites, 17th-Century English settlements, and historic Euro-American and African American sites for a project area along the lower James River in Virginia. Completed a technical cultural resources report.

Archeologist/Cultural Resources Specialist, November 2001

Niagara Mohawk. Gravestone Documentation and Preliminary Recommendations for Preservation at the Johnstown Colonial Cemetery, Johnstown, New York.

Photographed and analyzed 359 historic gravestones for effects from remediation activities planned at the adjacent Niagara Mohawk property. Prepared a preliminary technical report and protection plan for historic Johnstown Colonial Cemetery listed on the National Register of Historic Places.

Archeologist/Cultural Resources Specialist, November 2001

Texas Eastern Transmission LP. Phase 1 Cultural Resources Investigation, TIME Project, Lambertville Compressor Station, Hunterdon County, New Jersey

Conducted archeological and historical investigations for proposed natural gas compressor upgrades. Prepared a final cultural resources technical report.



Archeologist/Cultural Resources Specialist, November 2001

Texas Eastern Transmission LP. TIME Project, Pennsylvania, New Jersey and New York Conducted consultations for a FERC application, including SHPO consultations, Native American consultations, and reviews of archeological reports. Prepared Resource Report 4 and an Unanticipated Discovery Plan for the FERC application.

Archeologist/Cultural Resources Specialist, October 2001

Niagara Mohawk. Stone Retaining Wall Documentation, Niagara Mohawk Johnstown (N. Market Street) Site, Johnstown, New York

Photo-documented a stone retaining wall before and after interim remedial measures at a former manufactured gas plant. Prepared a final cultural resources technical report.

Archeologist/Cultural Resources Specialist, October 2001

National Aeronautics and Space Administration, Marshall Space Flight Center. Environmental Resource Document, Huntsville, Alabama

Assembled archeological, architectural, historical and environmental information about Marshall Space Flight Center. Developed a predictive archeological model for prehistoric and prehistoric sites. Prepared a final cultural resources technical report.

Cultural Resources Specialist, October 2001

Department of the Navy. Archeological Test Pit Monitoring at the Debris Area, Nomans Land Island, Massachusetts

Monitored machine test pitting at a former Navy debris area. Prepared a final cultural resources technical report.

Archeologist/Cultural Resources Specialist, September 2001

National Aeronautics and Space Administration, Propulsion Research Laboratory Environmental Assessment, Marshall Space Flight Center, Huntsville, Alabama. September 2001.

Assembled archeological, architectural, historical and environmental information about the proposed site of the Propulsion Research Laboratory. Prepared a final cultural resources technical report.

Archeologist/Cultural Resources Specialist, September 2001

U.S. Army Corps of Engineers, Philadelphia, Airport Apron Environmental Assessment; Cultural Resources, Fort Dix, New Jersey September 2001.

Reviewed archeological, historical and environmental information for Fort Dix, New Jersey. Prepared the final cultural resources technical report.

Consultant, August 2001

Trunkline LNG Company. Lake Charles Terminal, Calcasieu Parish, Louisiana
Conducted consultations for a FERC application, including SHPO consultations, Native American
consultations, and reviews of archeological reports. Prepared Resource Report 4 and an Unanticipated

Discovery Plan for the FERC application.



Cultural Resources Specialist, June 2001

U.S. Army Engineering and Support Center, Huntsville, Delivery Order 0015, Contract No. DACA 87-94-D-0020, Savanna Army Depot Activity Engineering Evaluation/Cost Analysis, Savanna, Illinois

Analyzed cultural resources identified during geophysical magnetometer and unexploded-ordinance investigations at the Savannah Army Depot Activity. Prepared a cultural resources technical report.

PREVIOUS EXPERIENCE

Archeological Consultant, December 1995 - Present

Town of Redding Board of Selectmen and Redding Planning Commission, Redding, Connecticut

Major tasks included conducting a town-wide historical and archeological survey documenting 106 archeological sites, 852 historic structures, and archeological sensitivity modeling for more than 20,000 acres. Conducted Phase 1-3 excavations at archeological sites on town lands, including preparing 13 cultural resources reports. Procured funding for compiling a town history in cooperation with the Redding Historical Society. Developed a town-wide volunteer archeology program. Reviewed all subdivision applications for impacts of historic and archeological sites for the Redding Planning Commission. Developing a National Register Nomination for the Poverty Hollow Historic District.

Archeological Consultant, October 2000 - January 2001

Friends and Neighbors of Putnam Memorial State Park, Redding, Connecticut

Nominated Putnam State Park as Connecticut's First State Archeological Preserve for the protection of 1778-1779 Revolutionary War encampments.

Archeological Consultant, June 1998 - April 2000

Florence Griswold Museum and Connecticut College

Conducted an archeological field school for Phase 1-3 excavations at the Lyme Art Colony, Old Lyme, Connecticut, including specialized analyses of 18,000 historic artifacts from studios and other features, prepared a detailed archeological report and museum cultural resources management plan.

Environmental Specialist, GS-12, January 2000 - May 2001

Federal Emergency Management Agency, Region 1, Boston, Massachusetts

On-call disaster assistance for cultural resources, certified training in federal cultural resource and environmental regulations.

Project Archeologist, September 1992 - May 1995

John Milner Associates, Inc., Danbury, Connecticut

Conducted sensitivity modeling for diverse utilities, pipelines and transmission lines, Phase 1-3 archeological investigations for state and private clients, and completed 17 cultural resources technical reports, from the Southeast, Middle Atlantic and New England regions.

Assistant Administer of Research, January 1987 - September 1992

Maryland Historical Trust, Jefferson Patterson Park and Museum, St. Leonard, Maryland Museum duties included conducting archeological surveys an excavations at prehistoric and Colonial archeological sites in Southern Maryland, exhibit development and Maryland Archeological Curation and Conservation Laboratory design, reviewed development projects and CRM reports for compliance with federal and state regulations, conducted volunteer training and education programs, compiled 7 technical



reports, presented 3 professional papers and 2 publications, series editor for Jefferson Patterson Park and Museum Occasional Papers No 1-5.

Archeologist GS5-7, 1976 - 1989 (intermittent)

National Park Service, Midwest Archeological Center, Lincoln, Nebraska

Environmental modeling and Phase 1-3 archeological investigations in Grand Teton and Yellowstone National Parks, Wyoming, and Glen Canyon National Recreation Area, Utah, authored or co-authored 19 technical cultural resources reports, professional papers and publications.

PUBLICATIONS & PRESENTATIONS

Reeve, S.A. 1999. An Historical and Archeological Assessment Survey of Redding, Connecticut. Office of the First Selectman, Town of Redding, Connecticut.

Reeve, S.A. 1992. Changes in Time: A Seriation Chronology for Southern Maryland Projectile Points. *Journal of Middle Atlantic Archaeology*. 8:107-138.

Reeve, S.A. 1986. Root Crops and Prehistoric Social Process in the Snake River Headwaters, Northwestern Wyoming. Ph.D. dissertation. SUNY Albany, University Microfilms, Ann Arbor.

Reeve, S.A. 1978. Ethnobotany and Archeology in Yellowstone and Grand Teton National Parks. <u>In:</u> Proceedings of the Conference on Scientific Research in the National Parks (2nd). 1:362-380. National Technical Information Service, Springfield, Ohio.

Reeve, S.A., L. Bradt, H.D. Juli and R. Gradie. 2000. The Archeology of the Lyme Art Colony, Florence Griswold Museum, Old Lyme, Connecticut. Connecticut College Archaeology Laboratory Report No. 11, New London, Connecticut.

Reeve, S.A. and K. Forgacs. 1999. Connecticut Radiocarbon Dates: A Study of Prehistoric Cultural Chronologies and Population Trends. Bulletin of the Archaeological Society of Connecticut. 62:19-66.

Reeve, S.A., J.C. Russo, D.J. Pogue and J.M. Herbert. 1991. Myrtle Point: The Changing Land and People of a Lower Patuxent River Community. Jefferson Patterson Park and Museum, Occasional Papers 3, St. Leonard, Maryland.

Reeve, S.A., and P. Siegel. 1996. Phase III Data Recovery at the Aud Site (Site 18ST634), St. Mary's County, Maryland. Maryland State Highway Administration Archeological Report 111. John Milner Associates, Inc., West Chester, New York.

Wright, G.A., S.J. Bender and S.A. Reeve. 1980. High Country Adaptations. *Plains Anthropologist*. 25:191-207.

Wright, G.A and S.A. Reeve. 1981. Prehistoric Resource Procurement and Climatic Change in Northwestern Wyoming, pp. 423-448. In: Quaternary Paleoclimate, W.C. Mahaney (ed.). Geo Abstracts Ltd. Norwich, UK.

Reeve, S.A. 1997. Redding Archeology, New Appreciation for Old Places. Lecture presented at the Institute for American Indian Studies, Washington, Connecticut.



Reeve, S.A. 1997. Mitigating Environmental Disaster: Archeological Investigations at the Flat Swamp Cemeteries, Newtown. Presented to the Archaeological Society of Connecticut Meeting, Connecticut River Museum, Essex, Connecticut.

Reeve, S.A. 1997. Connecticut Radiocarbon Dates: Compilation and Comparisons. Presented to the Archeological Society of Connecticut Meeting, Fairfield Historical Society, Fairfield, Connecticut.

Reeve, S.A. 1991. The Material Relationships of Prehistoric Territoriality: PIXE Trace-Element Characterizations of Middle Woodland Rhyolite in Southern Maryland. Presented to the Conference of Middle Atlantic Archeology, Ocean City, Maryland.

Reeve, S.A. 1989. New Data on the Prehistoric Cultural Sequence for Southern Maryland. Presented to the Conference for Middle Atlantic Archeology, Rehoboth Beach, Delaware.

Reeve, S.A. 1988. A Middle Woodland Shell-Pit Burial along the Patuxent River, Maryland. Presented to the Archeology Society of Maryland Annual Meeting, Elkton, Maryland.

Reeve, S.A. 1978. Ethnobotany and Archeology in Yellowstone and Grand Teton National Parks. Presented to the Conference on Scientific Research in the National Parks (2nd), San Francisco, California.

Reeve, S.A. 1976. Plant Resources and Prehistoric Transhumance in Jackson Hole, Wyoming. Presented to the 23rd Plains Conference, Minneapolis, Minnesota.

Reeve, S.A., and A. Burger. 1998. Redding: Archeological Modeling and Historic Preservation in an Old Connecticut Town. Presented to the Archeological Society of Connecticut Meeting, Central Connecticut State University, Bristol, Connecticut.

Reeve, S.A., and K. Forgacs. 1999. Connecticut Radiocarbon Dates: A Study of Prehistoric Cultural Chronology and Population Trends. Presented to the Archeological Society of Connecticut Meeting for Connecticut Archeology Today, Peabody Museum of Natural History, Yale University, New Haven, Connecticut.

Reeve, S.A., and P. Siegel. 1996. Estuarine Habitats and Plant Gathering During the Woodland Period in Southern Maryland. Presented to the Conference on Archeobotany in the Northeast, New York State Museum, Albany, New York.

Reeve, S.A., and P. Siegel. 1995. Woodland Period Activity Organization in Southern Maryland: A View from the Aud Site. Presented to the 62nd Annual Meeting of the Eastern States Archeological Federation, Wilmington, Delaware.

PROFESSIONAL ACCOMPLISHMENTS

Paul C, Lemon Award for Distinguished Research in Ecology and the Environmental Sciences, SUNY Albany. 1987.

Society for American Archaeology, Ph.D. Dissertation Competition: Honorable Mention. 1990.



STUART REEVE, Ph.D.

Social Scientist

PROFESSIONAL AFFILIATIONS

Society for American Archaeology Archeology Society of Connecticut Plains Anthropological Society

